the NORTHWESTERN MILLER®

THE INTERNATIONAL MAGAZINE
FOR THE GRAIN, MILLING
AND BAKING INDUSTRIES

INSIDE YOU'LL FIND . . .

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By Dr. Leonard Schruben

•

'Make the Free Enterprise System Work'
By Alden A. Ackels

MILLING TECHNOLOGY FEATURES

Phosphine Gas as A Fumigant
By Harrison E McGregor

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Pneumatic Installation in A Historic Setting

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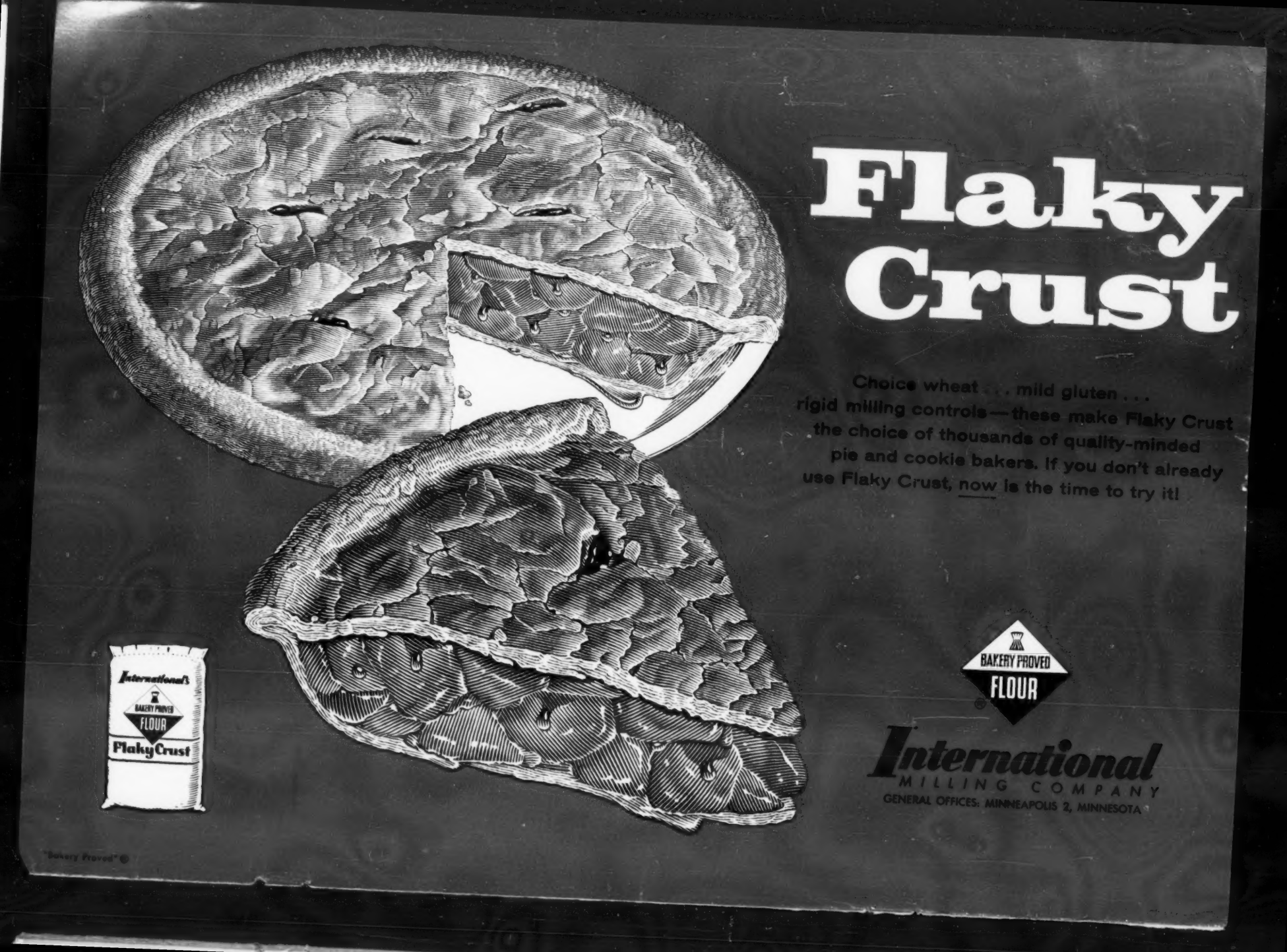
Volume 265 JUNE 26, 1961 Number 13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Published Every Other Week for the Grain, Flour and Baking Industries

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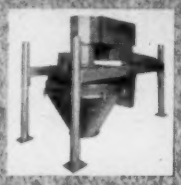
COVER PICTURE—

Donald S. Eber, executive vice president of the Association of Operative Millers, unveils the association's newly acquired banner at the annual banquet of the group in Minneapolis last month. The banner, presented by members of District 4 who worked on the 65th annual conference, is in red, white and blue, the association's official colors. Miller staffer George W. Potts shot the picture.



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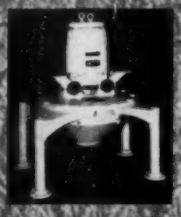

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Dr. Kosmina's Letter Evokes Reaction from Readers

NOT SURPRISINGLY, Dr. Natalia Kosmina's letter in the May 29 issue of THE MILLER generated some considerable reader reaction. One correspondent, indeed, suggested that we were allowing ourselves to be used as a medium for disseminating Communist propaganda. That is a nonsensical charge. THE MILLER is an international magazine for the grain, flour and baking industries and stands ready to publish all sides of any case presented by members of those industries.

The views of a grainman, miller or baker or of the technologists employed by them, on affairs of the day are important in the formulation of opinion. Mass produced thought is dangerous; free thought, freely expressed is conducive to universal understanding.

In any event, so distinguished a technologist as Dr. Kosmina will always find space in our columns for anything she cares to write on the subject of cereals research. The fact that in her letter she brought in matters of general interest, in refutation of statements made by Canadian-born cereal technologist Gordon Grosh, was entirely proper and justified. In that situation, what she wrote cannot be described as propaganda.

Dr. Kosmina, as a couple of readers have pointed out, is admired by many North American and European scientists for her contributions to the development of cereal processing technology. She has been extremely cooperative in the sharing of research information. It follows that her views on world affairs cannot go without notice in a responsible publication devoted to promoting better understanding among the peoples in the industries it serves.

Her refutation of some of the Grosh statements, while conceding that not everything he wrote was incorrect, was well presented and courteously written. We in the U.S. find it objectionable when a foreigner visits us for 10 days and then bursts into print with the inside story on the American way of life.

Dr. Kosmina took particular exception to the statement: "Houses without running water, toilets . . . are quite prevalent." Other visitors have reported the same thing, but we can assure Dr. Kosmina there are still places in the western world where the same situation prevails. Perhaps what Mr. Grosh was trying to bring out was that the lack of these simple facilities contrasted strongly with modernization elsewhere in the USSR.

Another small group of readers has indicated to us that they agree with the criticisms voiced by Dr. Kosmina and regretted the publication of the Grosh piece as tending to impair good relations between the U.S. and the USSR. Some, indeed, say that at the time of its appearance they proposed to write a critical refutation. But, strangely enough, none of them did. Reasons for not writing were the usual ones—too busy, doing something else, never got around to it. But even now, they have taken pains to instruct the Editor that what they say in defense of the USSR and in support of Dr. Kosmina must not appear in print.

Mr. Grosh, in his article, claimed that criticism of the government and party in the USSR is socially and politically undesirable. Cannot it be stated with truth that support or defense of the USSR by the citizens of the western world, expressed through any communications media, is socially and politically undesirable? How often do you see in print any praise for some Russian technical achievement revealed to those scientists who say they receive information from the Russians?

From readers who are disposed to argue with Dr. Kosmina we heard nothing. There is much to be said to refute some of her statements, but we will deal with only one aspect.

Dr. Kosmina took exception to Mr. Grosh's statement: "The Russians are sealed off from the outside world . . ." She gave some tangible evidence to refute the statement as far as scientists are concerned, though Mr. Grosh was speaking of the Russian people generally.

What are the figures? In 1959, 309 USSR scientists visited the U.S. Last year ony 218 came and U.S. officials consider that the 1961 total will be even less. These figures compare with the 550 American scientists who visited the USSR last year.

The number of U.S. scientists visiting the USSR is likely to shrink to around 500 this year. Officers of private companies complain that their representatives have been refused access to the scientists and laboratories they wished to see. And often they are only allowed to inspect "showplace" establishments and their travel is strictly controlled. In the U.S., the visitors are allowed to go where they wish within the limits of militaristic security. Naturally, the Russian reluctance has been reflected by similar reluctance on the part of U.S. firms. Instead of breaking up East-West tension, new tension has been started up.

Not even the flour milling-cereals technology side of USSR industry has maintained a completely open door policy, though Dr. Kosmina herself comes in for high praise from visiting North American technicians, including Mr. Grosh himself.

However, we recall that in the summer of 1959, one of the most distinguished men in the U.S. milling industry, Gerald S. Kennedy, chairman of the board of General Mills, Inc., was in Russia. He wished to take a look at the much publicized newly-built Moscow mill with a reputed capacity of 40,000 cwt. a day. After days of inquiry and request, the Russians gave a firm refusal, explaining that the right technical man was not available to show him around.

Dr. Kosmina deserves the plaudits of the technologists of the western world for her cooperativeness has done much to build friendliness in one area of East-West relationships. The free exchange of views and information is valuable and should go far to ease tensions generated at the political level. «

MORE EDITORIAL OPINION

Promotional Ability Shone at AOM Conference

IT IS THE DUTY of trade associations and professional bodies, in requesting members to invest time and money at annual conventions, conferences or meetings, to provide a speakers' program of excellence. Knowledgeable men must be engaged to address the members so that they may take back to their firms worthwhile information aimed at increasing their ability to do a better job, whether that job be in production or merchandising.

It is also the duty of those bodies to provide some form of entertainment for the members in out-of-session hours, for conviviality leads invariably to a better trading and competitive atmosphere and to the interchange of ideas.

Officers of the Association of Operative Millers carried out both duties superbly well at the recent 65th annual technical conference and trade show in Minneapolis. Organized with electronic efficiency, under the direction of Donald S. Eber, executive vice president, those having the good fortune to attend were uniformly in agreement on the excellence of the technical program and the accompanying functions.

Unfortunately, some organizations overlook the opportunity to boost their own product at such affairs. Not so AOM. Every member of the milling industry is a salesman for flour products among family, relatives, and friends, and all are potential drummers-up of business for flour products. That has been continually stressed to the members of AOM, particularly by Mr. Eber, and the technologists as well as their wives are bread conscious.

At so many conferences and meetings associated with the grain, milling and baking industries, the quality of the rolls served by the catering hotel often leaves something to be desired. And that brings unfavorable comment.

With this in mind, those charged with organizing the association's annual banquet determined to provide top quality rolls. And they did just that.

Five Minneapolis milling firms jointly provided 2,175 rolls and at the end of the evening the 700 banqueteers—an all-time record banquet attendance—left just three dozen. Even veteran food expert Sam Bratman, catering manager of the Hotel Pick-Nicollet, site of the conference, was impressed with their bread eating prowess, but even more impressed with the quality of the rolls provided by the mills.

There is a lesson here—good quality increases demand.

Provision of the rolls was arranged by the Pillsbury Co.'s George B. Wagner and the thanks of AOM members go to the milling firms who so willingly went to a lot of time and trouble to implement the project. Responsible for production were D. G. McPherson of General Mills, Inc.; Fred D. Smalz, Russell Miller-King Midas Mills; L. R. Gandel, Commander Larabee flour division of Archer-Daniels-Midland Co.; Dr. W. R. Johnson of International Milling Co., and Del Pratt of the Pillsbury Co. Thanks are also due to them and their staffs in the quality control labs. Well merited was the menu description, "Quality Baked Rolls."

The rolls were a major talking point at the banquet—it was not until the end of the meal that Mr. Eber revealed the source—and their memory will remain for a long time among a group of people whose primary task it should be to talk-up their own product.

The ladies were not to be outdone in the promotion field. They set about the task of illustrating to the wives of the millers and allied tradesmen—248 of them drawn from all over the U.S., Canada and overseas—the delights of dresses made from cotton print bags.

The local District 4 ladies committee, headed by Mrs. George B. Wagner (Pillsbury) and Mrs. Robert C. Ellis (International), set aside one of their luncheons for the style show with garments loaned by the National Cotton Council, Memphis, Tenn. The council's Mrs. Virgene Robinson was of inestimable help in making the arrangements. Also assisting were officials of Bemis Bro. Bag Co., particularly that firm's Ted Menges, an old hand at style show management. (The Bemis people also provided cotton material and burlap for some outlandish garments worn by male models who entered into the spirit of the promotion with courage.)

The whole show was capped by a display of hats and furs, plus the necessary accessories, loaned by the Donaldson Co., a leading Minneapolis department store.

Not content with the organizing of such an affair—in the hands of Mrs. Douglas Merritt (Commander Larabee) and Mrs. George E. Swarbreck (THE MILLER), the ladies did their own modeling, all schooled in the necessary techniques by Mrs. Merritt, herself a professional model. In addition to those two ladies, other models were Mrs. B. Wayne Carmichael (Merck & Co. Inc.), Mrs. Dan Strachan (Simon-Carter Co.), Mrs. Warren Jentink (Buhler Corp.), Mrs. Lee Paul (Commander Larabee), Mrs. Richard Sterling (Pillsbury), Mrs. Albert Gunner (GMI) and Mrs. James C. McNeil (Pillsbury).

Emphasizing the success of AOM as an important industry force was the presentation of a banner to the association (see cover picture) by the members of District No. 4 who put on the conference. Unveiled by Mr. Eber without a hitch, because of careful manipulative and engineering work by GMI's Robert McSherry and Bemis' Marshall Barnes, the banner will be exhibited at other conferences and district meetings as a symbol of AOM's aims and objects.

The conference attracted 905 registrants, a near record. Additionally, many local milling executives dropped by to see the trade exhibits and to question the allied men about their offerings and it is estimated that this spiralled actual attendance to somewhere in the region of 1,200. «

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INDUSTRY RECORD . . .
An account of Trade Affairs and Events

United States:

The U.S. Department of Agriculture has announced name change for the Cincinnati commodity office. Name was "The Commodity Stabilization Service Commodity Office (CSSCO)." It now becomes "The Agricultural Stabilization and Conservation Service Commodity Office (ASCSCO)."

●

Bay State Directors, Officers Named

All directors and officers of Bay State Milling Co., Winona, Minn., have been reelected, with **Paul B. Miner** moving up from vice president-general manager to executive vice president-general manager. **Paul T. Rothwell,** Boston, is board chairman, heading the list of directors which includes: **Frank J. Allen, Sr., M. A. Laberee** and Mr. Miner, Winona; **Earle W. Carr, Donald Falvey** and **Bernard J. Rothwell, II,** all of Boston; **Frank Hutchinson,** Lawrenceburg, Ind., and **Carl W. Swanson,** Worcester, Mass. Officers reelected are: **Bernard J. Rothwell, II,** president; Mr. Miner, executive vice president and general manager; Mr. Carr, secretary-treasurer; **David F. Wynne,** Winona, assistant treasurer and controller; **Hubert Weir,** Winona, and **Cecil E. Taylor,** Minneapolis, assistant secretaries. Mr. Miner's promotion follows a series of previous assignments. He began his career with Bay State in 1930 in the area of sales and bakery service. In 1953 he moved to the Winona headquarters as general sales manager and was elected vice president in charge of sales in 1955. Following graduation from the Advanced Management Program at Harvard University in 1959, he was elected vice president and assistant general manager, assuming duties of general manager in 1960. All out-of-town directors attended the 61st annual meeting of the company in Winona. **Mr. and Mrs. Paul T. Rothwell** and **Mr. and Mrs. Bernard J. Rothwell, II,** remained to attend a sales meeting conducted by **C. R. Stephenson,** general sales manager.

Paul B. Miner

●

North Carolina Passes Food Sales Tax

The much-debated North Carolina three percent sales tax on food items has been passed by the legislature and will go into effect July 1. Efforts to exempt bread from the regulation were not successful. Two amendments affecting bread had been introduced in the legislature. One would have exempted bread entirely. With failure of that measure, another was offered to exempt bread if—after the first year of the biennium—revenues amounted to $343 million or more. This, too, was turned down.

●

Norris Grain Sells Chicago Elevator

Norris Grain Co. has sold its Chicago elevator to Garvey Grain Co., a subsidiary of C-G-F Grain Co. Transaction includes release of the Burlington Railroad elevator at Kansas City to Garvey. Take-over of the two properties—outright purchase of the Norris elevator in Chicago and transfer of lease on the Kansas City plant owned by the railroad from Norris to Garvey — reportedly becomes effective July 1. Garvey is expected to open a Chicago office. Norris elevator in Chicago has capacity of 2,150,000 bu. Norris plans to continue to run its Calumet elevator of 2,800,000 bu. capacity in Chicago.

●

Centennial, Philippines Firm Sign Agreement

Centennial Mills, Inc., Portland, Ore., has entered into agreement with General Milling Corp., Mactan Island, Republic of the Philippines, to supply technical assistance, overseeing of wheat quality selection. **Dugald A. MacGregor,** president of Centennial, states that agreement assures continuation of his firm's flour brands, some of which have been distributed in the Philippines for more than 60 years. President of General Milling is **Tirso Uytengsu,** whose family has been associated with Centennial for a number of years. His firm, first port mill in the Philippines, started up in late May, has a daily capacity of 5,000 cwt. Other personnel include: **Wilfred Uytengsu,** executive vice president and general manager; **Gordon Clutterbuck,** mill superintendent and formerly with Unga, Ltd., Nairobi, South Africa. **J. W. Montzheimer,** who has been with Centennial 37 years, is being transferred to General Milling from the Spokane laboratory of Centennial, where he was in charge of quality control. **Moritz Milburn,** board chairman of Centennial, becomes a member of the board of directors of the Philippines firm.

●

Continental Baking Declares Dividend

A quarterly dividend of $1.37½ a share on outstanding $5.50 dividend cumulative preferred stock of Continental Baking Co. has been declared by the firm's board of directors. Dividend is payable July 1 to holders of record at the close of business on

DENVER SELECTED AS AOM SITE IN '62

The 66th annual technical conference and trade show of the Association of Operative Millers will be held in Denver, Colo., May 14-17, 1962. Members attending the recent Minneapolis conference had this brought to their attention by an attractive display set up by Marshall Barnes, Bemis Bro. Bag Co.'s promotional engineer, in the foyer of the banquet hall. John Wingfield, Colorado Milling & Elevator Co., voiced an invitation to members to come to the "Mile-High" city during the banquet. There is evidence that the Denver meeting will attain the same high standards set by other AOM conference centers and some allied firms have already reserved space for their exhibits.

June 16. Directors also declared regular quarterly dividend for second quarter of 1961 amounting to 55¢ a share on outstanding common stock, payable July 1 to holders of record on June 16. Directors also announced that company's stock transfer books will not be closed.

●

Bryo Stock Acquired By National Pectin

Guy W. Burns, president of the Bryo Co., Chicago, has reported acquisition of capital stock of his company by National Pectin Products Co., Chicago. National Pectin will continue to operate Bryo. The sale culminates more than half a century of identification of the Burns family with the baking industry. The company was formed in 1940 by Jay Burns, a former president of the American Bakers Assn. and one-time chairman of Standard Bakeries Corp. At the time Bryo was organized, Mr. Burns was president of Midland Bakeries Corp. His son, Guy, joined Bryo in 1941 as vice president and became president in 1958 upon the death of his father.

●

Great Plains Wheat Submits Budget

Budget of $389,000 for fiscal 1961-62 has been approved unanimously by the board of directors of Great Plains Wheat, Inc., and submitted to wheat commissions and committees in member states of Nebraska, Kansas, North Dakota and Colorado for final approval. **Clifford R. Hope,** president of Great Plains Wheat, states that budget is $20,000 below each of two preceding years, despite expansion of size and scope of the organization's activities. He explains paradox of expansion and lower budget this way: Great Plains did not spend all amounts budgeted in past two years, and it is now able to finance greater part of its promotional activities abroad with foreign currencies allocated to it by the Foreign Agricultural Service of the U.S. Department of Agriculture under provisions of Public Law 480. Operations now extend to five continents, more than 60 countries.

●

New Era's Expansion, Modernization to Continue

Stockholders and directors of New Era Milling Co., Arkansas City, Kansas, have authorized continuation of modernization and expansion program which has been in progress for the past several years. Feed section of New Era's new bulk storage plant has been completed and conversion of the mill to pneumatic operation already is one-third completed, reports **A. James Sowden,** president and general manager. Target date for completion of company's bulk flour plant and conversion to pneumatics is set for late this year or early in 1962. At 62nd annual stockholders meeting, all officers were reelected for the coming year: **Brigadier General H. F. Thompson,** board chairman; Mr. Sowden, president; **H. F. Feldman,** vice president; **P. W. Allee,** secretary, and **K. E. Linnenkohl,** treasurer. Directors are Brig. Gen. Thompson, Pres. Sowden, **T. S. McNeil,** Rogers, Ark., and **William H. Curtis,** Kansas City.

●

Southern Reports Operating Profit

Southern Bakeries Co., Atlanta, reports pre-tax estimated operating profit for 23-week period ended June 10 at $512,293, rise of 15.6% above same period of last year. **Ogden A. Geilfuss,** president, said sales of $14,409,000 are up three percent over 1960. Board of directors has declared quarterly dividend, the 96th, of 12½¢ a share on both preferred and common stock; an additional preference dividend, the 104th, of 12½¢ on preferred shares, and 18¾¢ interest on $10 debentures. All are payable July 3 to stockholders of record on June 21. Southern has made dividend payments consecutively for more than 25 years.

●

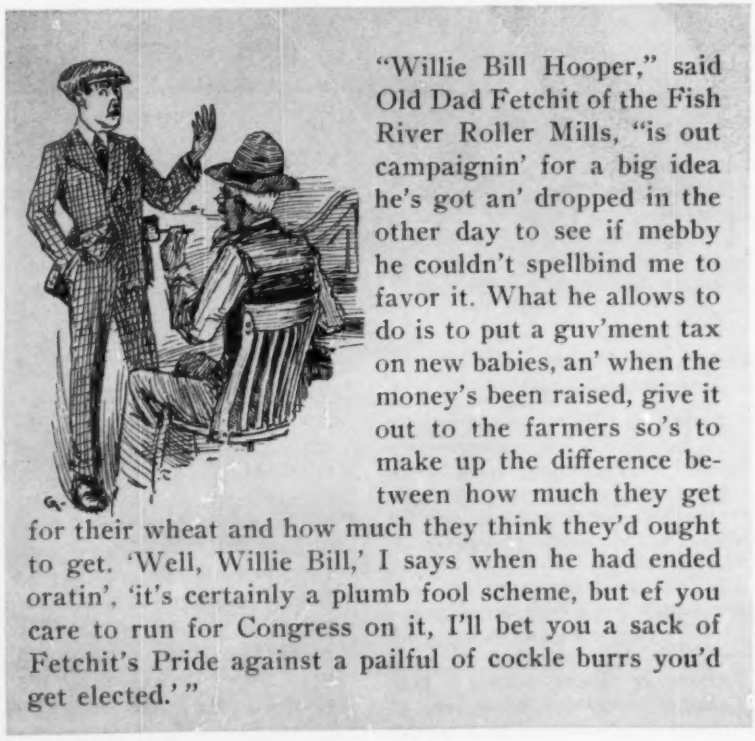
Cargill Modernizing Duluth Facilities

Cargill, Inc., has shut down its Duluth elevator to begin program of complete renovation and modernization, to be finished by opening of navigation about April 1 of next year. Involved is tearing down older portions of the elevator. In its place will be almost completely new 3,000,000 bu. all-steel headhouse and storage tanks. **Walter B. Saunders,** vice president, grain division, states that the new facility will be the fastest house for moving grain at the Duluth-Superior Port. Demolition is already started and contracts in process for new construction. Move also involves dredging of a deeper channel to accommodate the largest ocean vessels which can get into the Great Lakes; a new dock, two new high-speed truck dumps and a new high-speed car dumper. Cargill will continue to operate its "Itasca" elevator in Superior without interruption.

●

Canada:

General Bakeries, Ltd., reports record sales in 1960. Profits before taxes were $453,975, up from the previous year's $447,986, but increased operating expenses squeezed profit margins. Net profit was $240,975, or 96¢ a share, against $251,486, or $1 a share, in 1959. «



"Willie Bill Hooper," said Old Dad Fetchit of the Fish River Roller Mills, "is out campaignin' for a big idea he's got an' dropped in the other day to see if mebby he couldn't spellbind me to favor it. What he allows to do is to put a guv'ment tax on new babies, an' when the money's been raised, give it out to the farmers so's to make up the difference between how much they get for their wheat and how much they think they'd ought to get. 'Well, Willie Bill,' I says when he had ended oratin', 'it's certainly a plumb fool scheme, but ef you care to run for Congress on it, I'll bet you a sack of Fetchit's Pride against a pailful of cockle burrs you'd get elected.' "

Millers National Federation
Committee Appointments
Here They Are—the Men Who Will Spearhead MNF Activities During the Coming Year

EXECUTIVE COMMITTEE—Ellis D. English (chairman), Archer-Daniels-Midland Co.; W. H. Bowman, Acme-Evans Co.; Ben J. Greer, the Pillsbury Co.; Robert V. Harris, Harris Milling Co.; Gerald S. Kennedy, General Mills, Inc.; Henry E. Kuehn, Russell Miller-King Midas Mills; John L. Locke, Fisher Flouring Mills Co.; J. A. Mactier, Nebraska Consolidated Mills Co.; Malcolm B. McDonald, International Milling Co.; R. G. Myers, Rodney Milling Co.; G. M. Ross, American Flours, Inc.; James E. Skidmore, J. Allen Smith & Co., Inc.; John J. Vanier, Western Star Mill Co.; Donald H. Wilson, Eckhart Milling Co.; R. D. Zumwalt, Burrus Mills, Inc.

•

COMMITTEE ON AGRICULTURE—Carl C. Farrington (chairman), Archer-Daniels-Midland Co.; Atherton Bean, International Milling Co.; Marcus Heffelfinger, Russell Miller-King Midas Mills; Dean McNeal, the Pillsbury Co.; James E. Skidmore, J. Allen Smith & Co.; Don A. Stevens, General Mills, Inc.; Howard W. Taylor, Pacific Millers Assn.; Donald H. Wilson, Eckhart Milling Co.; R. D. Zumwalt, Burrus Mills, Inc.

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BAKERY RELATIONS COMMITTEE—Gerald S. Kennedy (chairman), General Mills, Inc.; W. H. Bowman, Acme-Evans Co.; Earl F. Cross, Colorado Milling & Elevator Co.; Ben J. Greer, the Pillsbury Co.; J. A. Mactier, Nebraska Consolidated Mills Co.; Malcolm B. McDonald, International Milling Co.; R. D. Zumwalt, Burrus Mills, Inc.

•

DURUM COMMITTEE—Phil Von Blon (chairman), International Milling Co.; E. W. Kuhn, Amber Milling Division, Farmers Union Grain Terminal Assn.; C. W. Kutz, Commander Larabee Division, Archer-Daniels-Midland Co.; E. L. Merry, General Mills, Inc.; L. S. Swanson, Russell Miller-King Midas Mills; R. R. Wentzel, Doughboy Industries, Inc.

•

EXPORT ADVISORY COMMITTEE—R. D. Zumwalt (chairman), Burrus Mills, Inc.; M. M. Benidt, General Mills, Inc.; John L. Locke, Fisher Flouring Mills Co.; F. H. McKown, Kansas Milling Co.; James E. Skidmore, J. Allen Smith & Co.; A. B. Sparboe, the Pillsbury Co.; W. M. Steinke, Russell Miller-King Midas Mills; John Tatam, International Milling Co.

•

FINANCE COMMITTEE—Henry E. Kuehn (chairman), Russell Miller-King Midas Mills; Robert V. Harris, Harris Milling Co.; Donald H. Wilson, Eckhart Milling Co.

•

GRAIN GRADING COMMITTEE—W. G. Catron, Jr. (chairman), Eckhart Milling Co.; W. E. Jernberg, Russell Miller-King Midas Mills; C. B. Knappen, Jr., Knappen Milling Co.; F. H. McKown, Kansas Milling Co.; W. C. Mikkelsen, Centennial Mills, Inc.; P. Norman Ness, International Milling Co.; Anthony C. Owens, the Pillsbury Co.; C. E. Taylor, Bay State Milling Co.; R. H. Uhlmann, Standard Milling Co.; William J. Walton, Jr., General Mills, Inc.; L. J. Weidt, Commander Larabee; Owen Wimberly, Okeene (Okla.) Milling Co.

COMMITTEE ON MILLFEED—Donald M. Mennel (chairman), Mennel Milling Co.; John Branston, General Mills, Inc.; L. D. Compton, Commander Larabee; Ogden Confer, Hubbard Milling Co.; K. C. Kelly, Igleheart Bros.; E. Don Rogers, Jr., Atkinson Milling Co.; George P. Urban, Jr., George Urban Milling Co.; John Weddle, Russell Miller-King Midas Mills; T. L. Welsh, Abilene (Kansas) Flour Mills Co.

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TECHNICAL ADVISORY COMMITTEE—O. A. Oudal (chairman), General Mills, Inc.; Alden C. Ackels, Bay State Milling Co.; Howard Becker, Nebraska Consolidated Mills Co.; Donald S. Eber, Association of Operative Millers; J. W. Giertz, Kansas Milling Co.; W. L. Haley, Fisher Flouring Mills Co.; William R. Johnston, International Milling Co.; Marvin Lawrenson, Colorado Milling & Elevator Co.; D. B. Pratt, Jr., the Pillsbury Co.; John A. Shellenberger, Kansas State University; Betty Sullivan, Russell Miller-King Midas Mills; John S. Whinery, Rodney Milling Co.

•

RETIREMENT COMMITTEE — Malcolm B. McDonald (chairman), International Milling Co.; Eldon Addy, Kansas Milling Co.; Alfred G. Beckmann, Pioneer Flour Mills.

•

TRANSPORTATION POLICY COMMITTEE — Donald H. Wilson (chairman), Eckhart Milling Co.; Gerald S. Kennedy, General Mills, Inc.; John L. Locke, Fisher Flouring Mills Co.; C. G. McClave, Montana Flour Mills Co.; Donald M. Mennel, Mennel Milling Co.; G. M. Ross, American Flours, Inc.; Bernard J. Rothwell, Bay State Milling Co.

•

WHEAT FLOUR INSTITUTE COMMITTEE — Robert V. Harris (chairman), Harris Milling Co.; Eldon Addy, Kansas Milling Co.; Harold P. Bell, Quaker Oats Co.; Roger F. Blessing Commander Larabee; R. P. Crofford, Burrus Mills, Inc.; Ken Fisher, Fisher Flouring Mills Co.; H. D. Hale, Western Star Mill Co.; Marcus Heffelfinger, Russell Miller-King Midas Mills; W. A. Lohman, Jr., General Mills, Inc.; L. L. Lundgaard, Ismert-Hincke Milling Co.; John T. Lynch, International Milling Co.; J. R. Peterson, the Pillsbury Co.; Harold M. Regier, Buhler Mills, Inc.; W. C. Toevs, J. Allen Smith & Co.; Paul Uhlmann, Jr., Standard Milling Co.; Tom White, Alabama Flour Mills; Frank A. Yost, Hopkinsville (Ky.) Milling Co.

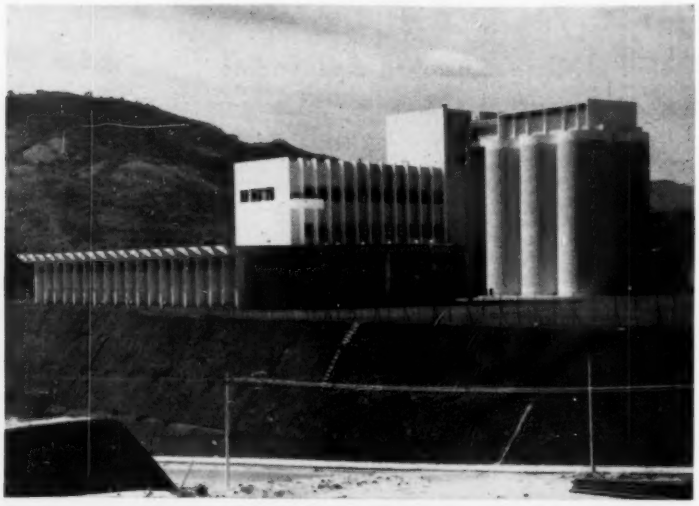
•

CONVENTION PROGRAM PLANNING COMMITTEE—R. L. Erzinger (chairman), Fisher Flouring Mills Co.; Clifton B. Capps, California Milling Corp.; John L. Locke, Fisher Flouring Mills Co.; S. N. Loew, Jr., Capitol Milling Co.; Dugald A. MacGregor, Centennial Mills, Inc.; C. G. McClave, Montana Flour Mills Co.; R. L. McGuire, Quaker Oats Co.; Henry Schmitt, Terminal Flour Mills; Howard W. Taylor, Pacific Millers Assn.

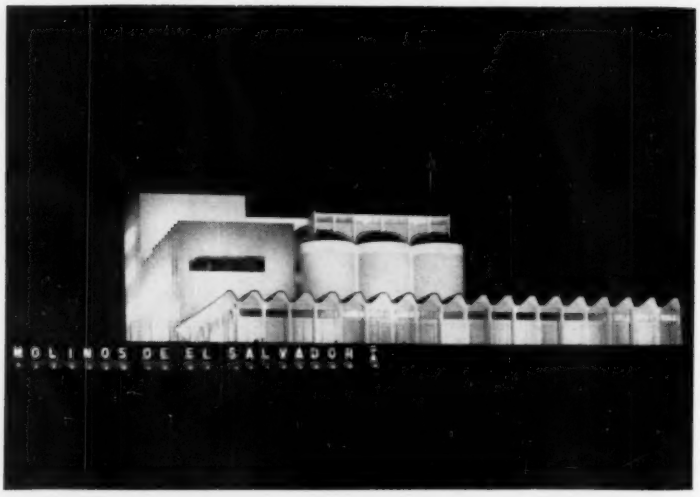
•

WEIGHTS AND MEASURES TASK COMMITTEE—O. A. Oudal (chairman), General Mills, Inc.; L. F. Aichlmayr, Centennial Mills, Inc.; B. A. Fretwell, Spartan Grain & Mill Co.; Charles E. Joyce, the Pillsbury Co.; John T. Lynch, International Milling Co.; E. W. Morrison, Jr., Morrison Milling Co.

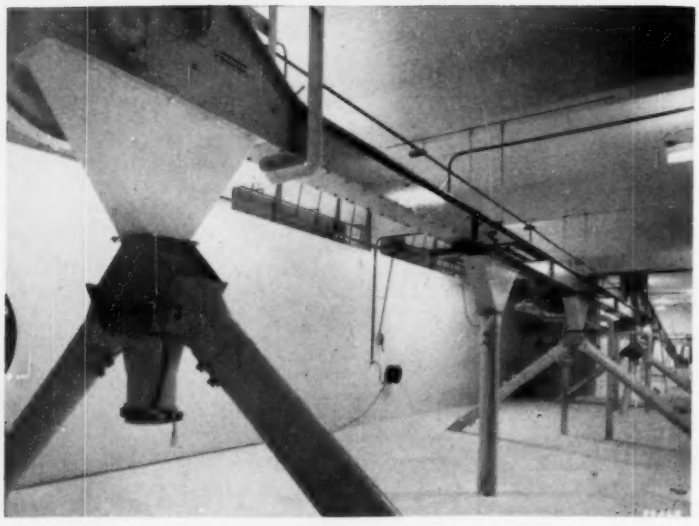
New Flour Mill Started Up in Republic of



THE NEW PLANT of Molinos de El Salvador, S.A. (Molsa), was started up recently in the Central American republic of San Salvador. Pictured from the outside, it can produce 1,400 cwt. flour in 24 hr. operation, or 85 metric tons of wheat, and was designed and erected by Buhler Bros., Uzwil, Switzerland.



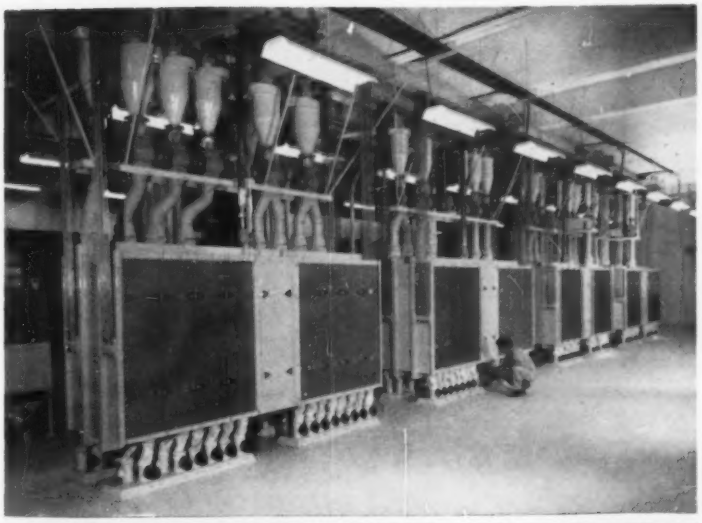
THIS NIGHT VIEW of the plant emphasizes its architectural design. The mill is at the left, the grain elevator to the right and the warehouse in the foreground. Molsa has a contract with the Pillsbury Co. for technical assistance and for production and marketing of Pillsbury flour brands throughout San Salvador.



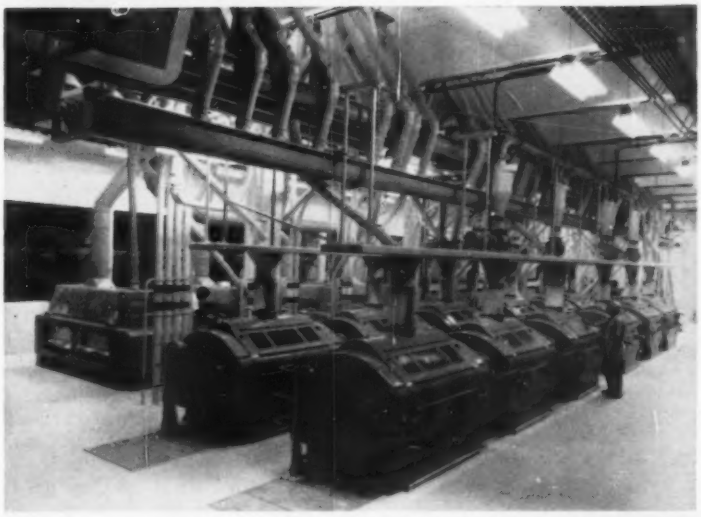
CHAIN CONVEYORS are shown in this picture distributing wheat into the storage bins. (The Molsa plant has a grain elevator for 5,500 metric tons of storage, with all necessary handling equipment, plus a pre-cleaning house with a capacity of 50 metric tons.)

San Salvador

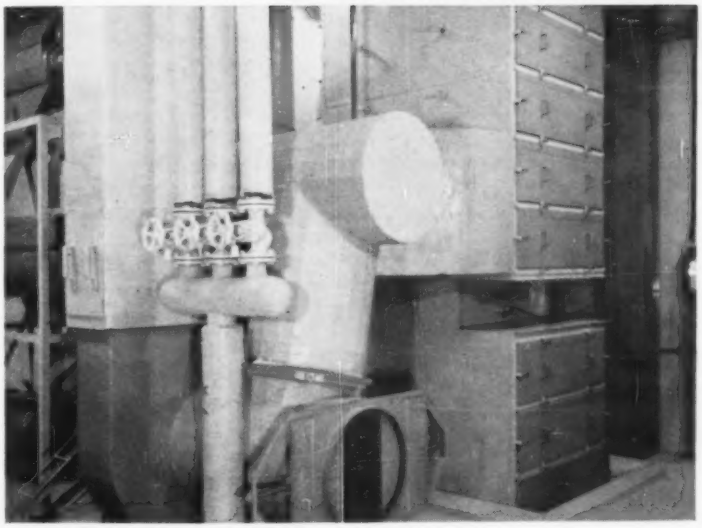
Plant of Molinos de El Salvador, S.A., Makes Striking Contribution to Skyline, Vital Link in Supplying Country's Flour



HERE IS THE second floor, with sifters and above them the groups of pneumatic separators and locks. (The Molsa plant has Buhler's two-floor mill layout. In addition, the color of the walls and accessories is toned to the clear green of the machines in the plant.)



A VIEW OF THE first machine floor shows the four-roller mills equipped with roller bearings, pneumatic-automatic engaging and disengaging rolls, water cooling. In the background can be seen the purifiers which have three-sieve layers.



A PARTIAL VIEW of the grain conditioner in the cleaning house can be seen in this photo. The cleaning house is equipped with pneumatic pressure conveying, all standard grain cleaning and washing machines and a conditioner for careful preparation of wheat before it is ground.

May Flour Output of 19,208,396 Cwt. Shows Gain; Daily Production Drops

U.S. wheat flour production for May is estimated by THE Northwestern MILLER at 19,208,396 cwt. and daily average output for the 22 working days at 873,109 cwt. Total output showed moderate gains over the previous month and May of 1960, but daily offtake dipped in both comparisons.

May output of 19,208,396 cwt. rose 507,396 cwt. (2.7%) over April and 1,396 cwt. (.7%) over the previous May. The official Bureau of the Census tabulations for April and May of 1960 were, respectively, 18,701,000 cwt. and 19,207,000 cwt.

The daily output for May of 873,109 cwt., however, was 61,891 cwt. (6.6%) below April. It was 41,891 cwt. (4.5%) below May of 1960. The census figure for April daily production was 935,000 cwt.; for May of last year it was 915,000 cwt. April had 20 working days and May of 1960 had 21. «

U.S. Wheat Flour Production May, 1961

Mills reporting to THE Northwestern MILLER account for approximately 83.5% of the total U.S. flour output. Figures for Buffalo, Kansas City and Minneapolis represent 100% of production for these points in hundredweights.

Minneapolis	935,173
Interior Northwest	2,394,505
NORTHWEST	3,329,678
Kansas City	1,033,161
Interior Southwest	5,142,584
SOUTHWEST	6,175,745
BUFFALO	2,278,377
CENTRAL & S.E.	2,600,686
N. PACIFIC COAST	1,654,525
TOTAL	16,039,011
Adjusted	83.5
U.S. TOTAL	19,208,396
DAILY AVERAGE	873,109

Bureau of Census reported 18,701,000 cwt. (935,000 daily) for April, 1961.
Bureau of Census reported 19,207,000 cwt. (915,000 daily) for May, 1960.

• • •

18,701,000 Cwt. Flour Produced During April

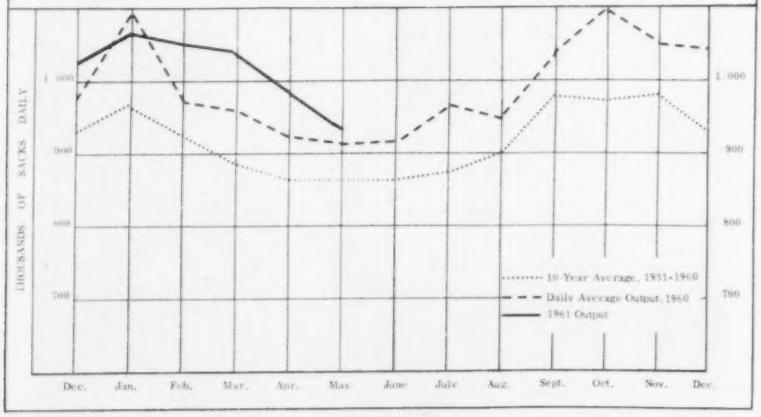
Wheat flour production in April was 18,701,000 cwt. averaging 935,000 cwt. a working day, according to the Bureau of the Census. This compared with an average output a working day of 985,000 cwt. in March and 929,000 cwt. in April of 1960.

Wheat flour mills in April operated at 86.2% of capacity against 91% in March. They also operated at 86.2% of capacity the previous April.

For April, flour mills ground 42,394,000 bu. wheat compared with 51,370,000 bu. in the previous month. The output of wheat offal was 345,331 tons for April.

Figures represent the production of all commercial mills in the U.S. About 97% of the totals were reported during 1960 and 1959 by 284 mills having a daily capacity of 401 cwt. or more and the balance estimated. The estimated portion is based on the 1958 Census of Manufactures. «

U. S. AVERAGE DAILY FLOUR PRODUCTION BY MONTHS



Global Movement of Wheat Flour Shows Increase for 1960

World trade in wheat flour for calendar 1960 climbed more than 4 million hundredweights over the previous year—to a total figure of nearly 95 million—continuing the strides in global movement which have been in progress for several years.

Tabulations by the export department of the Millers National Federation for 1960 show that the gains were made as a result of increased shipments from the U.S. and Australia, offsetting slight declines from Canada and other sources of supply.

Since 1954 the annual trade in wheat flour has climbed approximately 30 million hundredweights, and calendar 1960 represents the largest volume since the record early postwar years.

Increased shipments from the U.S. and Australia, and the slightly lesser movement from Canada and other sources, follow the pattern of 1959, reports the federation. (Semolina and special types of flour as well as mixes are not included in the over-all world total.)

Position of U.S.

With the increase in total shipments, the U.S. accounted for about 44% of the world's 1960 trade in wheat flour, or 41,900,000 cwt. (1959 was 37,152,000 cwt.). Canada's 1960 movement amounted to 15,775,000 cwt. (1959 was 16,580,000 cwt.). Australia's total in 1960 was 12,553,000 cwt. (10,921,000 cwt. in 1959). Other countries accounted for 24,600,000 cwt. in 1960 (in 1959 it was 25,800,000 cwt.).

The U.S. continues in first place among the major exporting countries, due to expanded movement under the auspices of Public Law 480 programs, notably to the United Arab Republic and Indonesia.

A total of around 28 million hundredweights of U.S. wheat flour moved under government programs, including foreign donation, or about 76% of total U.S. flour exports.

Although Canada's trade in wheat flour declined somewhat, the improved position of Australia is a continuation of gains over the past two years.

A further decline for total shipments from other world sources is apparent for 1960 when the calendar year total of 24,600,000 cwt. is compared with the revised 1959 tabulation of 25,800,000 cwt. Of this quantity, Germany and France accounted

HOW TO STORE AN INSECT BARRIER WITH YOUR GRAIN

Premium Grade Malathion protects stored grain against insects for a year or more ... for less than 1/5-cent per bushel

Malathion is a powerful grain protectant (not a fumigant). It should be used to protect the mass of stored grain — keeping clean grain clean — or, in a surface application, to protect fumigated grain.

Long-term, wide-range protection... at low cost

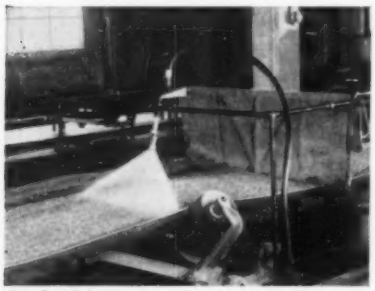
For less than 1/5-cent a bushel, Premium Grade Malathion protects your grain—for a year or more—against a wide range of important grain insects. They include: Indian meal moth, confused flour beetle, sawtoothed grain beetle, granary weevil, rice weevil, rusty grain beetle, lesser grain borer, and flat grain beetle.

How to protect grain mass with Premium Grade Malathion

As a spray — For the protection of stored grain such as wheat, oats, rough rice, corn, rye, barley, grain sorghum, and unshelled peanuts, apply 1 pint of Premium Grade Malathion 57% emulsifiable liquid in 2 to 5 gallons of water to each 1,000 bushels of grain.

Field and garden seeds can be protected with ½ pint of Premium Grade Malathion emulsifiable in 1 to 2½ gallons of water for each 500 bushels of seed.

Apply the spray as grain or seed is being loaded or turned into storage. Any standard applicator which can be calibrated to deliver a known volume of liquid is suitable for spraying Premium Grade Malathion.



Malathion can be sprayed onto grains as they are elevated into storage. Nozzles should be shielded against wind currents to minimize spray drift losses.

How to protect grain surface with Premium Grade Malathion

As a spray — To protect the surface of stored grain from attack by Indian meal moth, apply Premium Grade Malathion 57% emulsifiable liquid at the rate of ½ pint in 1 to 2 gallons of water for each 1,000 square feet of grain surface area. Apply the spray evenly, immediately after grain is loaded into storage.

As a dust — Apply 1% dust to the surface at the rate of 30 lbs. for each 1,000 square feet of area. Apply evenly, immediately after grain is put into storage and after turning.

Use a program

1. *Storage cleanup* . . . before grain goes in, spray with Premium Grade Malathion.
2. *Fumigation* . . . apply Cyanogas G-Fumigant *as* grain goes into storage, or Liquid HCN *after* the grain is in storage. In both cases, Premium Grade Malathion should be applied to the surface of the stored grain to prolong the effect of the fumigation . . . especially in the top layer of grain.
3. *Long-term protection* of grain mass and surface. When grain is clean as it comes into storage, Premium Grade Malathion should be applied to the grain stream to *keep* it clean. In addition, the grain should be "top-dressed" with Premium Grade Malathion for protection of the critical surface area.

Special advantages of Premium Grade Malathion

Besides wide-range control and low cost, Premium Grade Malathion, applied according to directions, has:

- Low toxicity to man and animals
- No effect on grain germination
- No effect on baking and milling properties

Note: Only those formulations using *Premium Grade* Malathion may be used on or around stored grains.

Premium Grade Malathion on stored grains . . . for grain that comes out of storage as clean as it went in.

The label instructions on Cyanamid products, and on products containing Cyanamid ingredients, are the result of years of research, and have been accepted by Federal and/or State Governments. Always read the labels and carefully follow their directions for use.

CYANAMID

MALATHION
INSECTICIDES

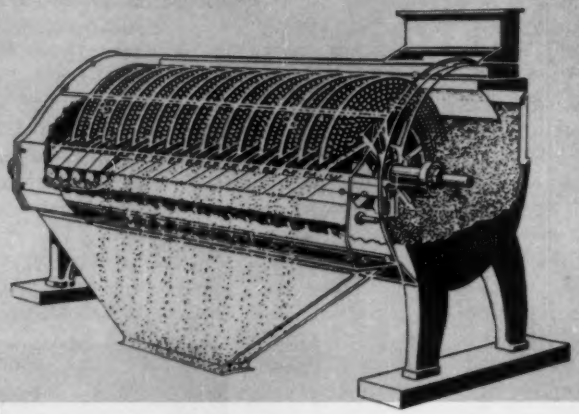
CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

GRAINS DIFFER IN LENGTH

CARTER DISCS SEPARATE BY LENGTH

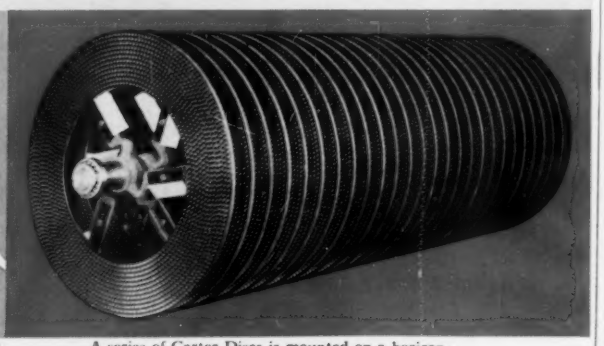
YOU CAN MAKE EXACT LENGTH SEPARATIONS WITH

CARTER DISC SEPARATORS



Many grains are almost identical in width or thickness and would be difficult to separate if it were not for differences in their *length*. Carter Discs contain hundreds of pockets that select or reject grain or seeds according to length . . . and assure *exact* separations.

Cross-section of a disc, showing how longer material is rejected.



A series of Carter Discs is mounted on a horizontal shaft. The entire mass of grain comes in direct contact with these discs.

SC

SIMON-CARTER CO.

673 19th Ave. N. E. • Minneapolis 18, Minn.

for 84%, both registering sizeable gains over earlier years.

They also compensated measurably for the elimination of Spain as a source of supply during 1960.

Exports of wheat flour from South American suppliers in calendar 1960 were meager compared with earlier years, due mainly to the inactive role of Uruguay in the world market. Slightly increased exports from Hong Kong and Japan, however, accounted for expanded total shipments from that area. «

Student from Iraq Wins Scholarship

A graduate student from Iraq, now at Kansas State University in Manhattan studying agronomy, is the first winner of the Zimmerman Agricultural Research Fellowship. The student is Muayyad A. Younis, who will receive a $500 scholarship established in 1960 by Mr. and Mrs. L. E. Zimmerman of the Whitewater (Kansas) Flour Mills Co.

Mr. Younis received his bachelor's degree from the University of Bagdad. At K-State he has earned the highest grade possible in every course completed since February of 1960, when he started his graduate work in agronomy. «

THIS IS Lou Foulds, one of the stars of "Winter Wonderland," presented for the allied trades party during the 65th annual technical conference and trade show of the Association of Operative Millers in Minneapolis. Entertainer Foulds climaxed the show by doing a pratfall, and when he arose—look what appeared! The allied trades party drew a record attendance of over 1,000 millers, allied tradesmen and their wives.

Buffalo Waterfront Getting 'New Look'

The major milling and grain handling firms which operate on Buffalo's waterfront have inaugurated a program of improvement which, when completed, should give the skyline a more attractive appearance and the companies involved more efficiency and productivity for years to come.

General Mills, Inc., which put its multi-million-dollar Bellera push-button flour mill into operation earlier this year is removing machinery from its 50-year-old "A" Mill to make way for two floors of warehousing space.

Buffalo Terminal Elevators has repaired its marine towers, is waterproofing its elevators, and covering the black waterproof material with aluminum paint.

Facility Extended

The Pillsbury Co., which last year built a $300,000 indoor loading facility, has just extended that facility by 90 ft. to provide a 250 ft. structure for loading 44 rail cars. To provide safer parking, Pillsbury has improved the configuration of its parking lot.

Cooperative GLF Exchange, Inc., is erecting a new pellet mill, using space formerly the front lawn, and is painting its grain elevators.

Russell Miller-King Midas Mills is expanding its storage capacity and moving ahead with major expansion plans to raise its mill output.

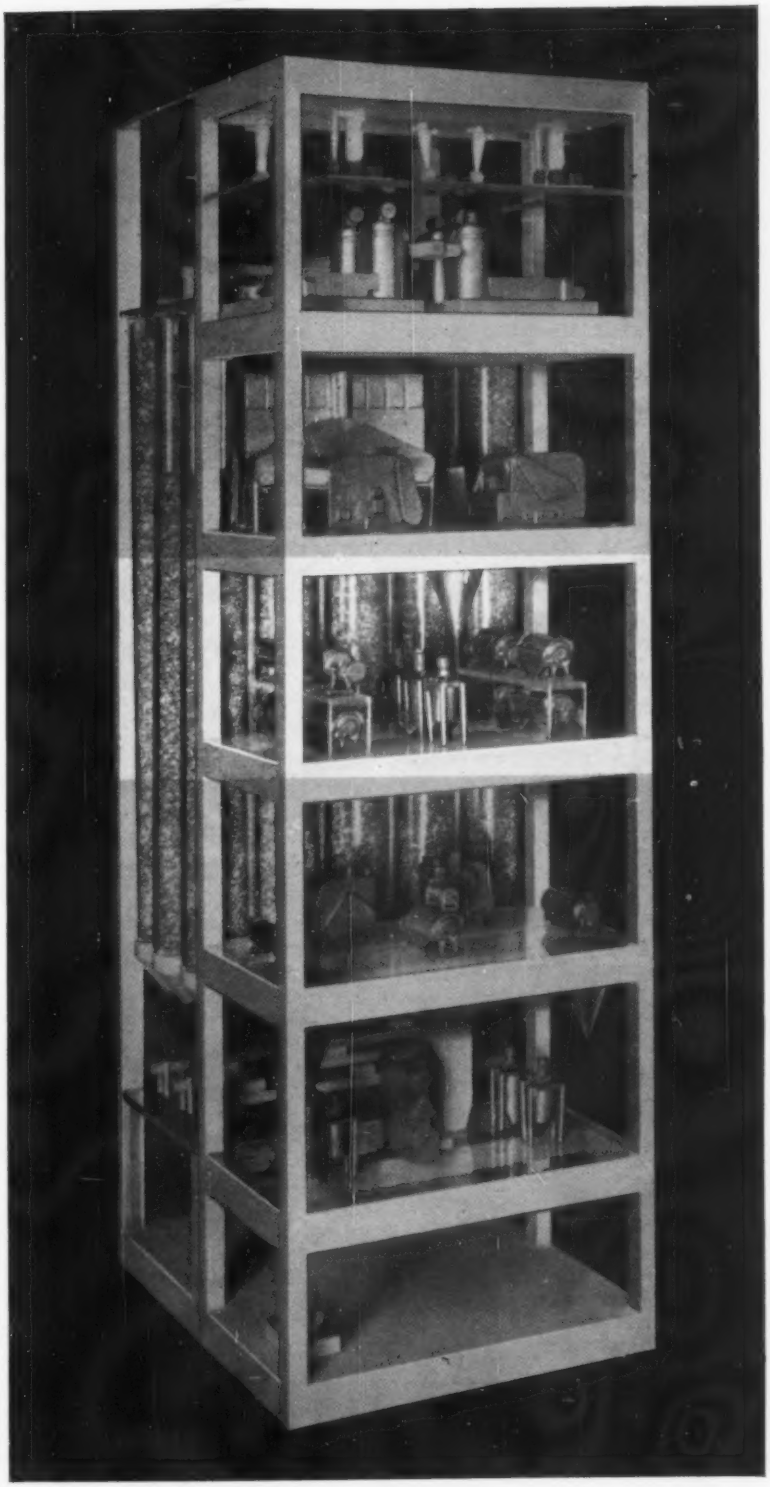
Standard Milling Co.'s Standard Elevator & Grain Division has let contracts to rebuild a 125-ft. section of its docks on the Buffalo River. «

Paniplus Moves Executive Offices

The Paniplus Co. has moved its Kansas City executive offices, including sales accounting and traffic departments, as the first step in consolidation of all departments at one location. The move is from 4049 Penn to 17th and Indiana, Kansas City 27, Mo.

William Stoneman, Jr., president, states that under a long-term lease Paniplus will occupy 84,000 sq. ft. of space on a 5⅓ acre tract. The manufacturing plant, research and control laboratories will be moved to the new location later this year.

Equipment is now being designed for bulk handling of certain raw materials. With installation of additional new blending and packing equipment, production capacity will be increased and quality standards further improved. «



Typical SIMON-CARTER wheat cleaning house ...including pneumatic conveying.

ECONOMICS OF WHEAT AND FLOUR:

Prospects for Wheat Prices

By DR. LEONARD W. SCHRUBEN
Agricultural Economist, Kansas State University

WHAT WILL WHEAT PRICES do this season? Should I make commitments early? Will greater exports give prices a boost?

Correct answers to these questions are keys to successful operation. They are especially important at this time as we shift into a new crop year. The grain industry goes through a period of uncertainty as the market adjusts from old to new crop wheat.

History tells us to expect downward pressure on prices through the harvest season. Since 1938 when price supports began, the season's low has been in the June to August period almost without exception. Of course, history doesn't always repeat — but it helps to identify possible economic pressure on prices.

To give a better picture of how wheat prices have behaved, we have prepared Exhibit 1. It shows the percentage of times the prices have gone up, stayed the same or gone down from June to August to October and to December.

The top part of the bar in the first column, for example, indicates the percentage of times that prices went up.

The bottom part of the bar shows the percentage of times that prices went down from June to August. As can be seen, it was 60%. Changes from June to the other months in Exhibit 1 are read in the same manner.

Notice that wheat prices have gone up from June to October about three years out of four since 1938. Even stronger upward adjustment in prices has occurred in the June to December period.

Enlarged markets for high quality wheat can add a firm tone to the market and at the same time, over a period of a few years, induce producers to grow wheat more in demand both in the U.S. and overseas. What about prices through 1961?

Having already prepared readers in case the forecast is wrong, look at Exhibit 2. Here is the forecast, as of early June, made by K-State economists. It is for No. 2 Wheat, Ordinary Protein, at K. C. The season's low at about $1.85 is pictured for early July, with an increase to about $2 by December.

This forecast is subject to change as factors change. In case it turns out to be correct we hope readers clip it and keep it handy. If we are wrong, then join us in forgetting about it as quietly as possible. «

EXHIBIT 1
Wheat—Kansas Farm Prices, 1938-58

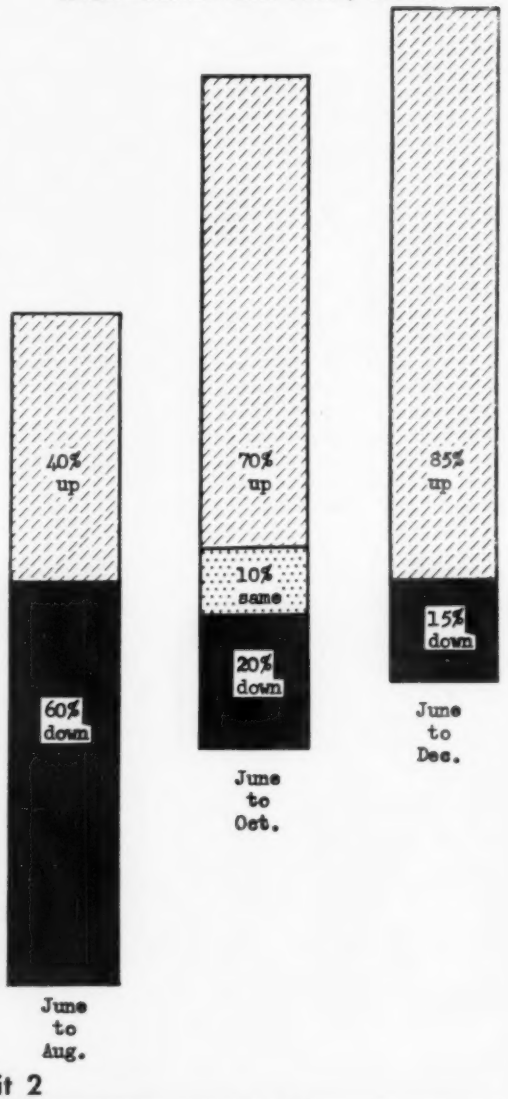
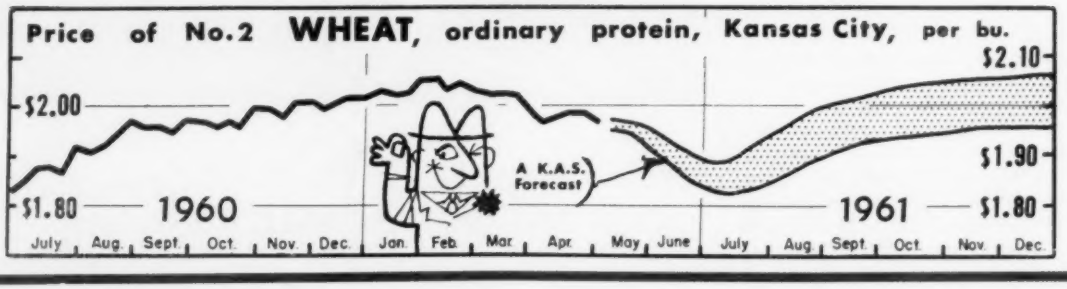
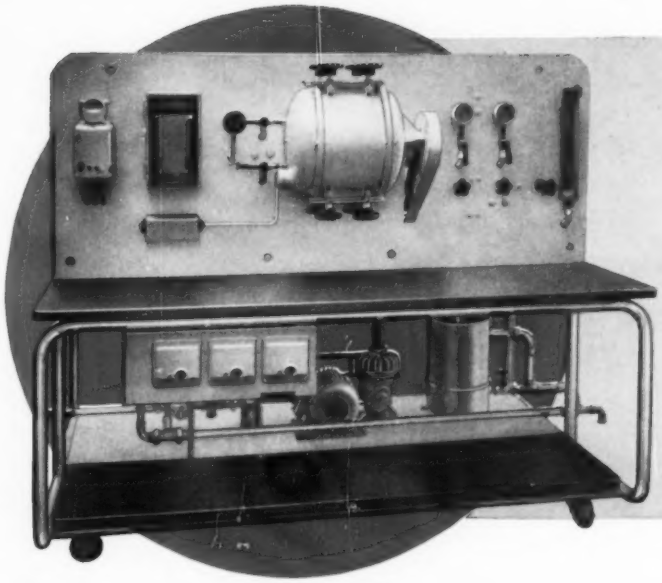


Exhibit 2





Laboratory Conditioner

The BUHLER Laboratory Conditioner provides the information you need to properly operate the full-size conditioner in your mill.

It warms, mellows, and dries a 6½ lb. sample of grain under conditions identical with those in your big service conditioner.

Tests usually take only 1½ to 2 hours. The conditioned sample should then be ground in a laboratory mill and the flour tested for gluten and baking properties.

These findings let you determine the ideal combination of moisture content, temperature and flow-through time needed to produce a flour of the highest possible quality.

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A Milling Technology Feature

Effect of Moisture on Insect Abundance In Stored Dried Foods

By RICHARD T. COTTON

THE insect pests of stored grain, milled cereals and other dried food products have certain moisture requirements which directly affect their abundance, and their ability to cause damage. Mites, although not true insects, are generally classed with insects as pests of stored grain and other dried foods.

Dr. R. T. Cotton

The insect and mite pests of stored grain do not normally have access to free water and depend upon their food supply for moisture needed to carry on their life processes. For this reason, grain moisture is an important factor in their life economy. Up to a certain point, increasing moisture content of stored grain favors a corresponding increase in rate of reproduction of the insects infesting it, it also increases attractiveness for migrating insects.

Insects are attracted to damp grain. If leaks occur in storage structures and portions of the grain bulk become damp, insects will be found in greater abundance there than in drier areas of the bin.

Surface grain that is cooler than the rest of the grain may become damp as a result of the trans-location of water vapor. Whenever a mass of grain has portions which differ in temperature, there is a movement of water vapor from the hotter to the cooler parts. When heating by insects occurs beneath the surface grain and outside temperatures are low, the temperature gradient is very steep and water movement may be excessive.

Water condenses on the cool surface grain and rotting may occur. Damp surface grain often attracts large populations of migrating insects. Many of these are scavenger insects, but others are true pests of grain.

The moisture content of stored grain that is in good condition is influenced by relative humidity of the air to which it is exposed. For example, wheat exposed to air with a relative humidity of 30% will gradually come to equilibrium at a moisture content of approximately 10% dry weight, whereas if it is exposed to a relative humidity of 62% it will come to equilibrium at 14% moisture content.

Insects need moisture to thrive and multiply—robbing them of it is one way to cut down their numbers in stored grain and milled cereal products. Dr. Cotton and others who have made studies of the effect of moisture on insect abundance have found that insect infestations are lower where such products are stored in arid or semi-arid climates.

Grain grown and stored in arid or semi-arid climates is normally low in moisture content and suffers much less from insect infestations than grain grown and stored in regions such as the Gulf states, where the humidity is high and grain moisture correspondingly high.

Requirements Differ

It has been previously stated that insect pests of stored grain depend upon food supply for their moisture requirements. If moisture content of the grain in which they are living is low, water required for carrying on the vital life processes can be obtained only by breaking down the food supply or food reserves of the insect body. Moisture requirements of the different species of insects that infest grain differ, as does the ability of these insects to produce the water they need.

Grain mites are rarely troublesome in grain with a moisture content of less than 13%, and they are unable to break down dry food to supply their water needs. Hilsenhoff (1957), referring to the effect of relative humidity on cheese mites, observed that the mites all died on cheese stored at a relative humidity of 43%.

Rice and granary weevils are unable to breed in stored grain with a moisture content below 9% and adult weevils soon die in dry grain. Cotton et al (1953) found that rice weevil adults failed to survive for more than a week in 8% moisture wheat. The rate of reproduction of the rice weevil in grain of different moisture contents is shown by the data of Table 1.

It is of interest to note that ability of the rice weevil to breed in dry grain is affected by temperature. As the temperature rises, ability to breed in dry grain increases slightly.

Flour beetles are less dependent upon moisture content of their food supply, for they are able to breed in milled cereal products or grain dust from which practically all moisture has been removed. These beetles are able to break down food to supply their moisture needs.

Nevertheless, a high moisture content in grain is much more favorable to their rate of reproduction and longevity. Presence of grain dust in

TABLE 1

Reproduction of the Rice Weevil as Affected by the Temperature and Moisture Content of Grain

Temp. °F	Progeny of rice weevils at the end of 5 months in wheat with percent moisture of						
	8%	9%	10%	11%	12%	13%	14%
70	0	0	0	87	4,827	8,692	10,745
75	0	0	0	0	4,262	9,244	12,444
80	0	0	326	885	9,681	10,267	13,551
85	0	0	0	..	5,090	6,436	5,983
90	0	12	413	984	2,233	3,230	3,934

Effect of Moisture (continued)

the grain in which they are breeding has a tremendous influence on longevity of these beetles in dry grain and on their rate of reproduction. Whereas longevity of these beetles in dry grain that is free from grain dust is seriously curtailed, low moisture has little effect on longevity if there is a material quantity of grain dust present. Reproduction also is much slower in dry, clean grain. At high temperatures moisture and grain dust are less important to reproduction.

Effect of Moisture

Effect of the moisture content of wheat in farm storage on its attractiveness to insects and on the rate of increase in insect populations during the summer months was observed over a five-year period in Reno County, Kansas (Cotton et al 1953).

Wheat of different moisture content that was uninfested when placed in storage in farm bins in June was sampled at monthly intervals and an index of the insect populations obtained from July to November of each year in bins of grain that varied in moisture content from 8% to 15.9%.

The average monthly insect populations, as represented by the insects found in 1,000-gram samples, over a five-year period, are shown by the data of Table 2. It can be seen that insect populations were never excessive in dry grain, whereas in moist grain they multiplied rapidly. Grain with a moisture content above 15% was attractive to insects at first, but infestations died out later.

It is obvious that in high moisture grain actual loss due to feeding of insects is much greater than in dry grain, due to difference in size of the insect populations present. Weevils and other grain-infesting insects will devour their own weight—and more—of food each week. Their larvae will consume many times their weight during the course of development to adults.

Actual tonnage destroyed by their feeding is serious enough, for it may amount to as much as 10% during one storage season. However, other results of attack may be even more serious. Many insects feed almost exclusively on the germ, and reduce viability. Others feed within the kernels, where they are unseen and hard to detect and remove.

From time to time reports are received of special varieties of grains reputed to be resistant to—or immune to—the attack of insects. Careful investigations have shown that, whereas certain varieties of grain are harder and have a certain natural resistance to attack, resistance is largely due to low moisture content of the grain.

Farmers hesitate to dry grain to safe moisture contents because, in many markets, they lose money if they have fewer pounds to sell, even if part of that weight is water. Removing water from grain does not result in loss of the dry matter, which is the valuable part. In fact, after a few months of storage dry grain retains more of its original dry matter than moist grain, because the moister the grain, the more dry matter is burned up by respiration of the kernel and by mold activity.

Some elevator operators recognize the greater value of dry grain and pay a higher price for grain that is drier than the official grain standards require. More grain dealers might well follow that practice. Low moisture grain keeps better and retains its viability longer. To preserve the viability of seed for the longest possible time, it should be kept in a dormant condition. High moisture content and high temperature speed life processes of seed and unduly shorten the period of viability. For this reason, the fundamental requirement for preservation of seed is low moisture. Low temperature is helpful, but not indispensable.

In the dry climate of the Southwest, grains lose moisture rapidly and, therefore, retain viability longer than in the South and Southeast, where high relative humidity of the air tends to maintain high seed moisture. In the North, where storage temperatures are lower, a low seed moisture content is not so vital.

Moisture content requirements for long-time farm storage of grains and seeds are lower than those set by the U.S. Official Grain Standards. In commercial grain growing regions of the U.S., wheat, oats, shelled corn and like grains, not intended for planting, can be stored for a year with very little loss if the grain moisture content does not exceed 13%.

Difficult to Fumigate

High moisture grain is more difficult to fumigate than dry grain and requires a very much larger quantity of fumigant.

El Rafie (1954) found that increasing moisture content of wheat from 13% to 18% more than doubled total sorption of carbon disulfide. Lindgren and Vincent (1960), experimenting with the confused flour beetle and the rice weevil in the presence of wheat and corn of 10%, 12.5% and 15% content, found that it required larger dosages of carbon tetrachloride, HCN and methyl bromide to kill 50% or 95% of adults as the moisture content of the grain increased from 10% to 15%. Exposure periods in all cases were for five hours with forced circulation.

It is an obvious conclusion that, aside from the added weight imparted to grain, milled cereals or other dried foodstuffs by moisture, there is little to be said in favor of high moisture. Low moisture grain and seed have superior keeping qualities, are less subject to damage by insects, are more easily fumigated and viability is maintained longer.

TABLE 2

Insects in Wheat of Different Moisture Content Stored in Wooden Farm Bins, Reno County, Kansas, July to November. Average for 1946-1950

Percent Moisture	No. of Bins	Insects per 1,000-Gram Sample				
		July	Aug.	Sept.	Oct.	Nov.
8-8.9	12	0	2	13	6	1
9-9.9	29	2	9	5	4	6
10-10.9	74	6	8	7	9	5
11-11.9	242	2	12	15	21	9
12-12.9	211	6	11	16	31	22
13-13.9	66	3	18	41	43	45
14-14.9	28	5	37	68	112	31
15-15.9	4	6	15	28	4	..

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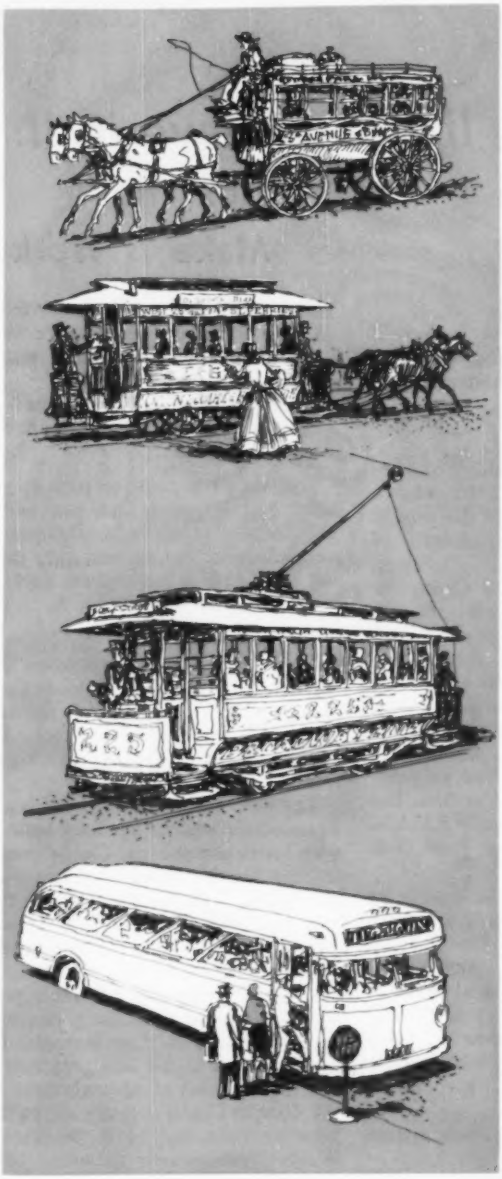

CHANGING TIMES

In 1834 the omnibus was the popular mode of local transportation; by mid century the horse car had supplanted this creaking, uncomfortable vehicle.

Later the electric trolley car really gave city and interurban traveling a big shot in the arm and service kept getting more and more deluxe until the bus took over.

Today trolley cars are museum pieces and the car tracks have been torn up to be melted down to make more busses.

Changing times bring changing habits to most people, but since 1834 the miller has learned to rely on SWISS SILK for sifting his fine flour. The same SWISS SILK that was so good a century ago is still the standard sifting cloth of the milling industry . . . a tribute to the integrity of its manufacturers, importers and distributors.

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The Free Enterprise System in America—

If You Believe in It:

★ Fight for It

★ Make It Work

By ALDEN A. ACKELS

THE GREATEST HONOR the milling industry can bestow upon a practicing operative miller is election to the presidency of the Association of Operative Millers. I am humbly grateful for the confidence you have placed in me, and for the honor it represents. To one who was practically raised in a flour mill, whose father and grandfather were millers, it represents recognition beyond measurement in ordinary values.

Alden Ackels

Seldom does one have an opportunity to talk to a group from such widespread points of origin. I want to take advantage of this occasion to talk about our greatest problem . . . **yours** and mine. The Cold War, in which the world is engaged, is an economic war. It is a war of ideologies, rooted in the question of whether or not the tools of production should be in the hands of private business men or government for the greatest common good of the people. Free private enterprise is on trial for its life.

If you believe in our economic system . . . in our form of government . . . fight for it and . . . above all else —make it work.

In response to requests from many readers we are publishing in full the thought-provoking talk presented by Alden A. Ackels, newly-elected president of the Association of Operative Millers, at the annual banquet in Minneapolis. Mr. Ackels, who is with the Bay State Milling Co., Winona, Minn., recently returned from a trip to Europe.

The World's Wealth

In the United States, under free enterprise, six percent of the world's people on seven percent of the world's land, have produced fifty percent of the world's wealth.

According to the 1958 Census of Manufactures, you people are the business leaders of 20,519 production workers in the flour and meal industries located from coast to coast. Our allied friends present probably represent a similar group. Because business leaders and their wives usually are also community leaders, you probably influence the thinking of at least five times as many people in your P.T.A.'s, your church groups, and your civic groups.

Sell America . . . sell the economics of the free enterprise system, wherever and whenever you can. Don't worry too much about selling your fellow businessman . . . usually he already believes. Sell your sweeper; your loader; and yes, your union business agent . . . your milkman; your laundry driver; your grocery boy. They are your volume customers.

The United States' economic system has been noted for its efficiency in mass production and for the high living standards of its working people. There is no other economic system that has shared the fruits of industry, imagination and labor so well with the working people. There is no earthly reason why it cannot continue to do so; however, under the stress of global attack, **all** of our people need to understand and fight for the system that has produced the results we enjoy. Not only must we fight for it for ourselves, but we must do our level best to export it around the world to peoples who are today evaluating their course of action, if we want our children to live in a climate of peace and prosperity.

International Communism is dedicated to destruction of the way of life we hold dear. Khrushchev has said:

"Do not doubt that the Soviet Union will stand on its own in this economic competition; will overtake and outstrip you."
"I can prophesy that your grandchildren in America will live under Socialism."

Will we let it come to pass by default? Not if people like you and I will sell the 100,000 to 200,000 people you influence, and so well that they, and those they influence, will fight by word and deed to prevent it.

Point Clarified

I must pause to clarify a point: The response of many people to this approach is that we are arguing for lower wages. This is farthest from the truth, we are arguing for higher wages.

The wealth of the United States and its economic success has been built on ever increasing income for its people through sharing benefits of improved production with the people. In that way free enterprise has built its customer, and the worker his living standard. The hazard in this area today is simply that organized economic pressure has tended to outstrip productivity improvement. For example, my interpretation of the data presented in the 1958 Census of Manufactures for the flour and meal industry shows that between 1954 and 1958 "Production Worker" productivity increased 18%; however, hourly wage costs increased 24.6%, which left a resultant increase in unit costs. Call it a missile gap, if you will. I shall leave to your own decision whether labor was wrong in taking more than the improvement in productivity, or we, the plant management were deficient in our efforts to improve operations. This is the old "chicken and the egg" argument. From an economic point of view, suffice it to say that between management and labor we did not quite get the job done properly in the flour and meal industry during that four-year period, if we want our economic system to prevail.

Before leaving our national problem, one additional point should be made.

The confiscatory tax situation must

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be remedied if we are to progress with the vigor this nation is capable of unleashing. We probably cannot significantly reduce the total tax take in the immediate future, but we must so broaden the base through increased national income that rates may be reduced to levels that will promote, rather than stifle, growth.

Practically every major decision today by astute business men involves consideration of the income tax effect of his choices. Far too often the tax consideration forces rejection of the alternative that would be best for our economy and our people. Everyone of us has a real long-term interest in seeing to it that the present tax shackles of business and capital are reduced to a level that promotes growth. It is hope of profit that built our economy and we must see to it that our tax practices do not kill initiative in those who are willing and able to venture for profit. Make your beliefs in this area felt. You are leaders of a significant group which helps form public opinion. Here the bait probably must come first . . . lower the tax rates and watch industry blossom. It's no wonder a baby cries at birth. He comes into the world penniless, naked and owing the government $30,000.

Dr. Albert Einstein once said:

"Imagination is more important than knowledge—for knowledge is limited, whereas imagination embraces the entire world, stimulating progress, giving birth to evolution."

Bernard Baruch has said:

"Our problem is how to remain properly venturesome and experimental — without making fools of ourselves."

As your new president, I shall dedicate my effort to the Association of Operative Millers through the next year to help encourage the imagination of which Dr. Einstein spoke, the venturesomeness without foolishness, of which Mr. Baruch spoke, in an effort to help our industry contribute its full share to defeat of the communistic challenge to our way of life. «

Capsule Reports Of AOM Papers

On the Technical Side . . .

Bellera Process

'Simplicity, Compactness'

NEW PRINCIPLES of milling and processing techniques, as developed and activated by General Mills in its new Bellera process, were discussed by Ted C. Betker, General Mills, Inc.

Ted Betker

As a form of introduction, he stated that there have been many improvements in milling recently, but excluding pneumatic handling, most equipment is similar to that used 25 years ago, just updated through better design of conventional equipment. In this respect, Bellera is different because it is a new design and includes processing techniques employing new principles of milling. Mr. Betker stressed that, although design of the special equipment was developed by General Mills, application of the process features, such as flow sheet and certain grinding and classifying principles, is not limited solely by use of the special equipment.

In describing the development of Bellera, Mr. Betker explained that the first work was done in the laboratory by General Mills personnel, beginning with proving basic principles, then progression to constructing a pilot mill, and finally a unit for tests on a commercial scale, with final engineering and production of the commercial units being handled by Buhler Bros. Of the first four units built, three went to existing facilities in Minneapolis and the fourth to an entirely new operation in Avon, Iowa.

Avon now operates with a 4,000 cwt. capacity, a 1.5 million bushel elevator, 20,000 cwt. of bulk flour storage and the latest packing, loading and bulk handling facilities. "Avon is strictly a baker's mill," he stated, "with no small size packing equipment at all." Reference was also made to the latest installation in Buffalo, which was dedicated in March.

Special Features

In discussing special and unique features of the Bellera mills, Mr. Betker mentioned such equipment as the double and single roller mills, dusters, classifiers, filters and pneumatic fans, all supported by structural steel framework independent of the building except where the base of the columns rest on the floor. Fabrication of supporting framework was done in sections, he explained, each section bolted one on top of the other. Units were completely pre-erected in Switzerland, with all equipment attached to the frame then disassembled by sections and packed for shipment, with each crate containing a complete section. All of the preceding was explained as being a primary factor in cutting down erection time compared with a conventional mill.

Combination of patented classifiers with other Bellera processing factors was said to help eliminate purifiers found in conventional mills, also serving as the conveying medium between roller mills when working in conjunction with the stacked mill concept. Double and single roller mills mounted on the stack were described as high speed rolls with water cooling.

"Simplicity, compactness, yields, sanitation, quality and uniformity were all important considerations in the design of the Bellera mills. As millers you all realize the importance of flour uniformity to the baking industry and we consider this one of the prime virtues of Bellera," concluded Mr. Betker.

●

Mill Goals

'For Next 10 Years'

GOALS FOR THE milling industry in the coming decade, with particular emphasis on such areas as supply, production, materials handling and marketing, highlighted a presentation by C. L. Mast, Jr., executive vice president of the Millers National Federation

C. L. Mast

Beginning with a brief discussion on profits, "the goal for any business in the U.S.," he stressed the need for a high degree of efficiency and competency on the part of the operative miller in order to make the most of what is generally recognized as a low margin business.

Mr. Mast stated that any business or industry needs to move forward through expansion of operations, sales and services in order to prosper. Also, it must have adequate plant facilities and a labor force and manage-

'Lighter Side' of the AOM Conference

HERE, IN REHEARSAL, we have the "Parade of AOM Dolls" which set the Ladies Style Show in an uproar at the 65th annual technical conference of the Association of Operative Millers in Minneapolis. They are, left to right: "Wanda" (B. Wayne Carmichael,) Merck & Co., Inc., costumed right out of the roaring 20's; "Dee Dee" (Douglas Merritt,) Commander Larabee Milling Co. "Miss Bag of 1961"; "Miss Denver Doll" (Donald S. Eber, AOM's executive vice president), and in the photo at the far right, "Georgeen" and "Georgette," more well known respectively as George E. Swarbreck, editor of THE Northwestern MILLER, and George B. Wagner, the Pillsbury Co. Costumes were through the courtesy of Bemis Bro. Bag Co.

AT THE FAR LEFT, "Dolls" sparked AOM banquet ticket sales with a sweet drum beat. On the drum is George W. Potts, THE MILLER's advertising sales manager. At the right some of the allied tradesmen get "on key" for the record-breaking allied trades party. Left to right are: George W. Potts; Robert J. McDonald, Bemis Bro. Bag Co., co-chairman of the committee; Richard K. Barnes, Simon - Carter Co.; B. Wayne Carmichael, committee chairman, and George E. Swarbreck.

SHOWING THEIR gay attire which greeted guests to the allied trades party are, left to right: Jack Houston, Wallace & Tiernan, Inc.; Fritz Schiess, the Buhler Corp.; Robert Hoel, Graton & Knight, Inc., and Thomas E. Hartman, Superior division of the Daffin Corp.

ment team possessing qualities of efficiency, competency and enthusiasm, resulting from faith in the business and its future.

"And speaking of enthusiasm," he said, "it seems to me that this is one of the milling industry's important goals—more positive thinking—more faith in the industry and less of this trivia about it being a 'dying industry'."

At this stage, Mr. Mast pointed out that adequate pay alone would not attract the type of personnel needed by the industry in order to keep pace. Rather, elimination of negative thinking and talk, even in jest, would do more to build a feeling of loyalty and confidence in milling's future among the young men and women planning a career in the industry.

Subject of Supply

On the subject of supply, he stated, "With increased knowledge and techniques used in plant breeding, with the tools the plant scientist now has and which—given adequate support—he will have in the future to help him in his evaluation, there will be an acceleration which makes it impossible to comprehend what advances the plant scientists may make in the next decade."

Some developments to be expected are: Further shifts in wheat production, shifts between classes, shifts in production areas, and changes in supplies as brought about by legislation.

So far as goals in the general area of supply, ample and stable supply of high quality milling wheats was named as foremost. In order to obtain this goal, it was stated, continued and increased cooperation and support of both public and private research in plant breeding, evaluation and crop improvement programs must be maintained.

Past trends and where they might lead in the coming years were discussed by Mr. Mast. Among these are further separations of the wheat berry, application of new scientific discoveries, factors which might affect mill locations and further shifts in production areas, changing size of mills of the future, and greater consumer acceptance of the finished product.

"Certainly the next 10 years will be challenging ones in the area of milling processes and techniques. The rewards for aggressive leadership in the art of milling will be great, the penalty for complacency may be oblivion," he said.

The second major area discussed was that of materials handling, as related to transportation and its changing pattern.

"Among the major factors in the transportation upheaval, as far as milling is concerned," he said, "are use of inland waterways for shipping both wheat and flour; tremendous movement of wheat by truck, especially for long distances; the perfection of bulk freight cars suitable for carrying flour, use of bulk trucks for the delivery of flour; establishment of flour depots; construction of grain elevators at river locations; and the long series of horizontal freight rate increases which took place in the first post-war decade. . . ."

Locations in Jeopardy

In elaborating on this subject, Mr. Mast indicated that we have not seen the last of the aforementioned upheaval in transportation. Further, it may place many mill locations in jeopardy; many already suffering sharply from changes to date. The great challenge here is to successfully solve the complex problems involved with the most efficient handling and transportation of grain, flour and by-products. Other developments to be expected were named as a continued swing to bulk handling, further strides in containerization, in-plant handling and storage employing pneumatic and electronic devices and more automation and linear programming.

Defining marketing as the "consolidation and focusing on a single objective of all the factors affecting consumer demand and power . . . which constitute a successful sales

'JUST RELAXING' at the pre-conference reception given in Minneapolis by Don S. Eber, executive vice president of the Association of Operative Millers, are these early arrivals. At the far left are Mrs. Guy Stearns and Mrs. Robert Ellis whose husbands are associated respectively with Entoleter, Inc., and the International Milling Co. (All identifications are left to right). In the center photo are Mrs. and Mr. Richard K. Barnes. He is with Simon-Carter Co. At the right, conversing on the patio during the reception, are George B. Wagner and James C. McNeil, both of the Pillsbury Co.

MIAG ALL-METAL PURIFIERS

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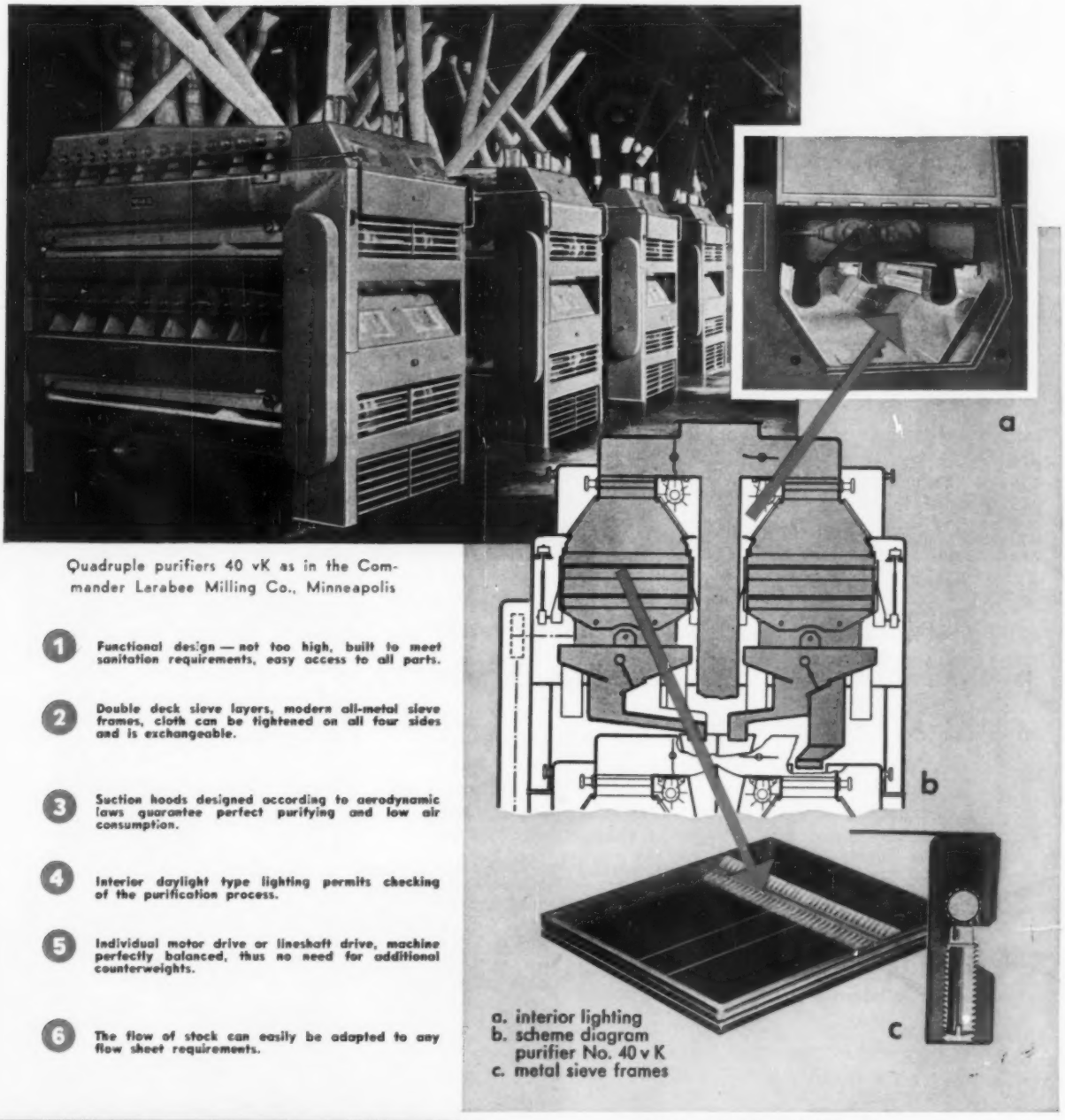

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a. interior lighting
b. scheme diagram purifier No. 40 v K
c. metal sieve frames

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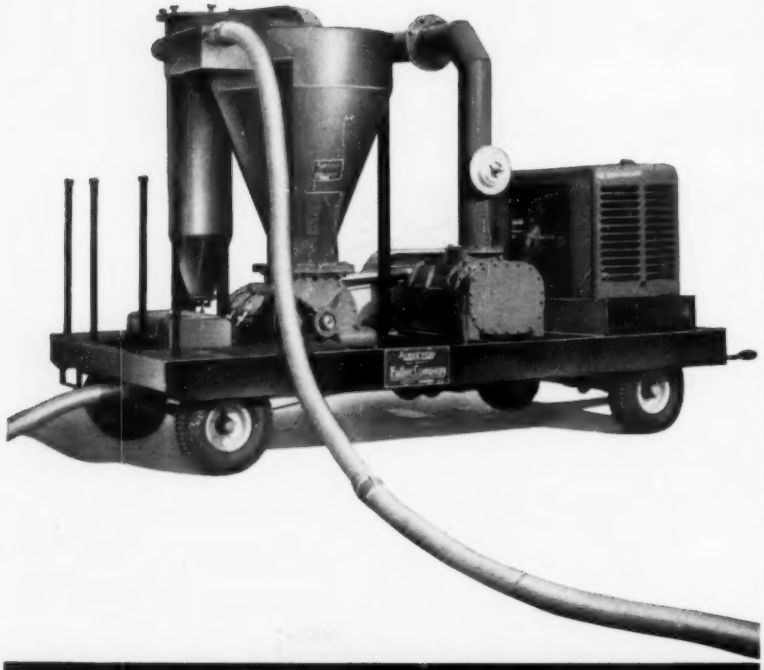

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program," he stated that constant research, yielding the best possible information of consumer preferences, product advantage and other points, must be employed to steer these marketing factors. He stressed that failure to market properly would result in waste of developments in other major fields—scientific developments, improvements in supply and materials handling.

"To be successful in selling a food or any other product you must be financially able to pay for the many different jobs upon which your success depends," he continued. Once a company is weakened financially to the point that it cannot pay for these things, it cannot hope to survive. Two essential steps must be taken to insure future success in marketing the milled product: Obtaining facts about the product and developing the most effective methods of broadcasting these facts to attract the consumer. Organizations that are aiding the marketing of wheat and by-products were listed as the Millers National Federation, Wheat Flour Institute, The American Bakers Assn., the American Institute of Baking and state, regional and national organizations of wheat growers.

In conclusion, he commented upon cooperation between MNF and the Association of Operative Millers, particularly with Don S. Eber, executive vice president. "This close working relationship, I am sure, will pay dividends to the entire milling industry and I want you to know it is appreciated. Your suggestions and ideas are always welcome and will continue to be given careful consideration by the federation, its committees and the staff."

•

Service, Sanitation

'What They Cost'

SERVICE AND SANITATION costs as they apply in demanding further ingenuity, ability and perseverance on the part of the industry were topics discussed by Marcus Heffelfinger, Russell Miller-King Midas Mills.

Marcus Heffelfinger

"The ultimate answer to many of our problems regarding the cost of better service and sanitation is beyond the jurisdiction of the operative miller," he said, "but nevertheless it is also ulti-

Camera Candids from the AOM Conference

The time-honored flour sack has been doing double duty a long time as a container for the product as it comes from the mill and later as a dress for milady. The ladies who attended the style show saw how it is done. Modeling is Mrs. Albert Gunner, Minneapolis, whose husband is with General Mills, Inc. Around the table, from left to right are Mrs. Robert McSherry, Minneapolis; Mrs. Charles Ackerman, Kansas City; Mrs. George S. O. Smith, Port Au Prince, Haiti, and Mrs. Keith Powell, Minneapolis. Mrs. McSherry's husband is with General Mills; Mr. Ackerman is with Southwest Mill Supply Co., North Kansas City, Mo.; Mr. Smith is with Caribbean Mills, Inc., and Mr. Powell with General Mills. Dresses were supplied by the National Cotton Council.

Minneapolis Morning Tribune Photo

THESE AOM EXHIBITS, among others, accented the unusual. Top left: The Day Co. displayed a "rogues gallery" of millers; lower left: the Buhler Corp. featured a free trip to Switzerland in its booth; lower right: Sterwin Chemicals Inc. emphasized the space age in its exhibit.

Photo by Mrs. George Tooker

THIS DRESS, also made from flour sacks, is being modeled by Mrs. Richard Sterling. Her husband is with the Pillsbury Co.

mately vital to him."

Help and cooperation with mutual problems among the various segments of the industry were mentioned as primary in solving cost and service problems. Further, the changing pattern of farm legislation was pointed out as having great bearing upon determining availability and quality of wheat supplies.

"Our customers at home and abroad are demanding standards in flour which can only be met by millers in the form of improved wheat varieties. Furthermore, for our foreign business, the amount of our domestic wheat surplus and the type of subsidy program we have will go a long way toward determining whether we ship wheat or flour overseas," Mr. Heffelfinger stated.

In consideration of these facts, he stated that the milling industry must continue to work with wheat grower organizations and the federal government to assure the quantity and the quality of raw materials.

Improved efficiency and cost control were indicated as a significant factor in justifying expenditures for modernization programs. However, it was stressed that these items would be almost mandatory at any rate in order to maintain quality control and sanitation.

Perfecting Standards

A continued effort toward perfecting standards of purity was mentioned as another primary goal which millers should set for themselves. Some reasons given for the importance of this upgrading process were those of tougher government controls on flour purchased for its purposes, more field inspectors, more seizures and more condemnations and prosecutions.

Continuing, Mr. Heffelfinger said, "It is vital that millers and bakers work together in the milling, storing and transporting of flour under sanitary conditions." In pointing out the growing investments in equipment by the bakers and resulting demands for better quality on the miller, he indicated that millers must recognize the necessity of being able to furnish the products and services required. However, upon recognition of these needs, management would also need to consider the investment in time and equipment when it computes the cost of its product. Here, the operative millers were advised of their duty to management in keeping them advised as to the projected costs of manufacture and distribution for any new services or functions performed by the mill.

The role of the operative miller today was cited as highly important and requiring more and more skills, knowledge of equipment — purchase and installation—handling of products in the mill, transportation and design. The miller should be high on the management team, possessing knowledge of how to get the job done and to control costs to allow an adequate return on the invested capital. "He must provide the plan to be able to accept the ever increasing challenge of tomorrow," Mr. Heffelfinger concluded. «

Association of Operative Millers
Gold Medal Award

BY order of the Executive Committee, the Association of Operative Millers hereby establishes its highest award, to be known as the "Association of Operative Millers' Gold Medal." It shall be the purpose of this award to recognize and promote truly outstanding contributions by individuals to the milling industry in the fields of endeavor represented by the active membership of the Association of Operative Millers.

Eligibility

ACCOMPLISHMENTS of high lasting value to the Association of Operative Millers' membership shall be the criteria for eligibility for the award. Membership in the Association of Operative Millers shall not be a prerequisite; however, distinguished service to the Association, of lasting value to the industry, may be recognized by the Award Committee.

Award Committee

THE three immediate past presidents of the Association of Operative Millers, who are available for service, shall serve as a nominating committee. The immediate past president, who is available for service, shall serve as chairman. It shall be called the Association of Operative Millers' Gold Medal Award Nominating Committee.

Nominations for the Award

ANY active member of the Association of Operative Millers may suggest names of eligible recipients to the members of the committee. The committee, on its own initiative, may consider any eligible person. The committee shall make a formal nomination of its selections to the Association of Operative Millers at the annual business meeting of the Association for vote by the membership. The chairman of the committee, or his delegate, shall present the committee's nomination to the business meeting and shall move that the Association adopt the recommendation of the committee. The committee's verbal nomination shall be accompanied by a written nomination clearly stating the accomplishments of the nominee which caused the committee to place his name in nomination.

A SIMPLE majority vote of those present and voting at the annual business meeting shall constitute adoption by the Association of Operative Millers of the Award Committee's nomination.
The committee may consider posthumous awards.

THE committee's written statement of nomination for all accepted nominees shall be transmitted to the Executive Vice President for retention in the permanent archives of the Association of Operative Millers.

Frequency of Award

NO more than one award per year may be granted. If, in the opinion of the committee, no one available meets the high standards of accomplishment which this award is intended to recognize and promote, the chairman of the committee shall so inform the business meeting, when called upon for his report. There shall be no name placed in nomination which does not fulfill the high purpose of the Association in the establishment of this honor.

Cost of Award

THE Executive Committee does hereby authorize and instruct the officers of the Association to have designed a suitable gold medal of a quality commensurate with the high purpose of the award. The medal shall include the insignia or seal of the Association. There shall be engraved thereon the name of the recipient and the time of the award by the active membership.
The cost of the molds or dies to form the award, and the cost of the medals, shall be paid for from the general funds of the Association.

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YEARS AGO

From the Files

Of THE MILLER

By Sarah Yocom

It's vacation time! Yes, it's the time of year when we all begin to think of venturing into parts unknown and all the accompanying pleasures that a brief trek away from everyday activities will bring. Being suitably well-adjusted and normal, this writer admits to being susceptible to all the symptoms, including the ensuing pipe dreams and wandering thoughts. So, in that spirit, we thought we would let this be our "disorganized" week; no theme, no pre-determined idea of what items to use. We just browsed through the pages of our illustrious ancestor and selected some items at random. As usual, they're peppery and some are amusing, but most of all we think you'll find them interesting and helpful in conveying some of the local color and history of the era they represent.

85 YEARS AGO . . .
June 23, 1876

In our news column there is an item to the effect that burglars recently "went through" the safes of several flour mills in Neenah, Wis., but didn't find much money. Of course not! Any well posted miller would have predicted as much.

●

Anticipating direful consequences which might follow the Milwaukee convention, and fearing much damage to our editorial persons if that vast army of machinery contractors should visit us under the leadership of the magnificent Mr. C., attempting to raid our sanctum, one of our devoted admirers has sent us a breech-loading, back-action, double barreled mountain howitzer, as an additional means of protection. We shall have it mounted on a field carriage in the center of our castle, and think that with it and the club that our friend Tucker gave us, assisted by the broken-winded revolver that we won in a raffle, we shall be able to defy the whole host.

●

The woman who runs the steam engine in the female pavilion at the Centennial exposition says that the work requires far less attention than to take care of a child all day.

●

Two new grist mills of large size are talked of at Red Wing, Minn. As this is the largest primary wheat market in the world, it is undoubtedly a good situation for them.

●

The LaCrosse Democrat says the old Winnebago chief Nee-ha-ga made his appearaance in that city yesterday, having arrived in safety from Nebraska. His son "Jo," who has civilized and cultivates a farm in Jackson county, went out there this spring and paid the passage for his father home. Nee-ha-ga is probably the oldest living human being in Wisconsin, and is from 106 to 120 years old.

●

Odds 'n' Ends—

50 YEARS AGO . . .
June 21, 1911

There was a great deal of interest shown in the announcement of the formation of the General Baking Co. which is offering its securities. The issue will consist of $10,000,000, 7% preferred stock, $10,000,000 common stock, $5,000,000 of first mortgage bonds, and $5,000,000 of refunding 6% bonds. The issue has been underwritten by Harvey, Fiske & Co., and will be offered by them for sale.

●

Joseph L. Willford, well-known in the millfurnishing trade at Minneapolis, has invented a process for tempering wheat by the gradual application of heated air and water. Patents covering the process and apparatus are about to be issued.

●

The Wednesday evening smoker at the mass convention of the Millers National Federation in Niagara Falls was the best ever given by the organization. Cool and pleasant weather, coupled with a good programme of music and popular songs, drew every member to this event and many of the gentlemen brought their wives . . . George Urban contributed one of the best features of the smoker by digging up from some remote place in Buffalo, what he called a Human Band. By making strange noises with their mouths this aggregation gave a fair imitation of a band and they certainly looked almost human.

●

25 YEARS AGO . . .
June 24, 1936

W. R. Heegaard of the Russell-Miller Milling Co., Minneapolis, was chosen president of the Spring Wheat Millers Club at the annual meeting held last week. W. M. Steinke of the King Midas Mill Co., Minneapolis, was elected vice president.

●

Stamps, birds' eggs, buttons, butterflies and such like are too trivial for Ray C. Davis of Kent, Ohio. His hobby is collecting old millstones. The treasures already include many from the U.S. and some from foreign countries. One of the rarest is from a mill in France. Mr. Davis uses the yard around his house for a display place.

●

Over 40 millers attended the first general meeting of the Ontario Flour Millers Assn., held in Toronto, June 15. With a membership of 61 in its first year, the fact that over 40 were at the meeting indicates the interest in and the support given the work of this active association.

●

10 YEARS AGO . . .
June 26, 1951

Jan Schuddeboom, Sr., a director of P. C. Vis & Co., Amsterdam importing firm, until his retirement last month, has received the order of Knighthood of Orange-Nassau from H. M. Queen Juliana in recognition of his services to Holland.

●

James F. Bell, one of the deans of the American milling industry and founder of General Mills, Inc., this month completes a half century of service with General Mills and its predecessor, the Washburn Crosby Co. «

Bemis Appoints R. P. Perry to New Research, Product Development Post

R. P. Perry, manager of the Minneapolis plant and sales division of Bemis Bro. Bag Co., has been appointed director of product development, a new company position in which he will report directly to Judson Bemis, president.

Headquartering in Minneapolis, Mr. Perry will be responsible for developing effective means of planning, evaluating, budgeting, coordinating and directing Bemis' research and development efforts.

Mr. Perry will be succeeded as plant and sales division manager at Minneapolis by Dexter A. Clarke, heretofore manager of the Bemis plant and sales division in Indianapolis. K. W. Koechig will succeed Mr. Clarke as manager at Indianapolis.

Since his initial association with Bemis as an administrative trainee at the company's Visinet mill in St. Louis in 1946, Mr. Perry has advanced successively to assistant manager of the St. Louis plant, then to manager there, and to plant and sales division manager at Minneapolis.

Mr. Clarke also began his career at the Visinet mill, where he started in administrative and sales work in 1938. He served from 1940 to 1954 with the general sales division in Minneapolis, then moved to Indianapolis as assistant manager, becoming manager there in 1956.

Mr. Koechig joined the firm in 1943

R. P. Perry

D. A. Clarke

as a sales correspondent in St. Louis. In 1951 he moved to the general sales department there as an assistant director of sales. He became supervisor of small paper bag sales in 1953 and supervisor for plastic bag sales as well in 1955.

In commenting on the newly created position of product development director, Mr. Bemis said, "It as one which will have a vital bearing on the company's over-all program of growth and diversification. As this long range program has been accelerated and expanded during the past several years, our research and product development likewise have been intensified and extended into many new avenues. In creating the post of director of product development, we are anticipating the need for more efficient and effective organization of the Bemis research and development program as our growth pattern continues." «

TO HELP PROMOTE the 20th anniversary of enrichment, General Mills, Inc., has erected prominent displays such as this one in its main office buildings. The flags placed on the loaf of bread denote the addition of niacin, thiamine, riboflavin and iron to bakery products.

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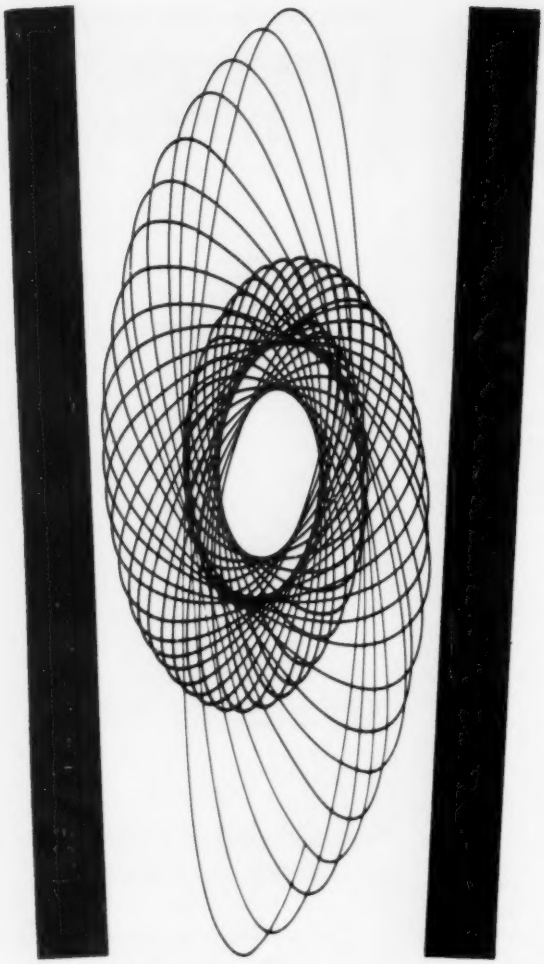


Longer shelf life for your cakes from Pillsbury **Sno Sheen...** because it's

TURBO-MILLED!

The key to Pillsbury's exclusive "Turbo-Milling"—air classification

By this special process—which begins where conventional milling ends—harnessed "hurricanes" of air separate flour into various fractions. These in turn are reassembled into totally new flours, each designed to meet specific baking needs. Thus, in milling wheat for Sno Sheen, only those fractions that make favorable contributions to cake-baking performance are retained.

Cakes stay more moist because you start out with more moisture

The moister the cake, the longer it lasts. Cakes baked with Sno Sheen contain—and retain—more moisture because "Turbo-Milling" lets the flour absorb more liquid in your formula to begin with.

Greater yield, finer texture

Since Sno Sheen absorbs more liquid in your cake formula than do conventionally milled flours, it yields more cakes. Better cakes, too: more velvety texture, brighter crumb color—because "Turbo-Milling" controls fineness of granulation as never before.

Day-in, day-out uniformity

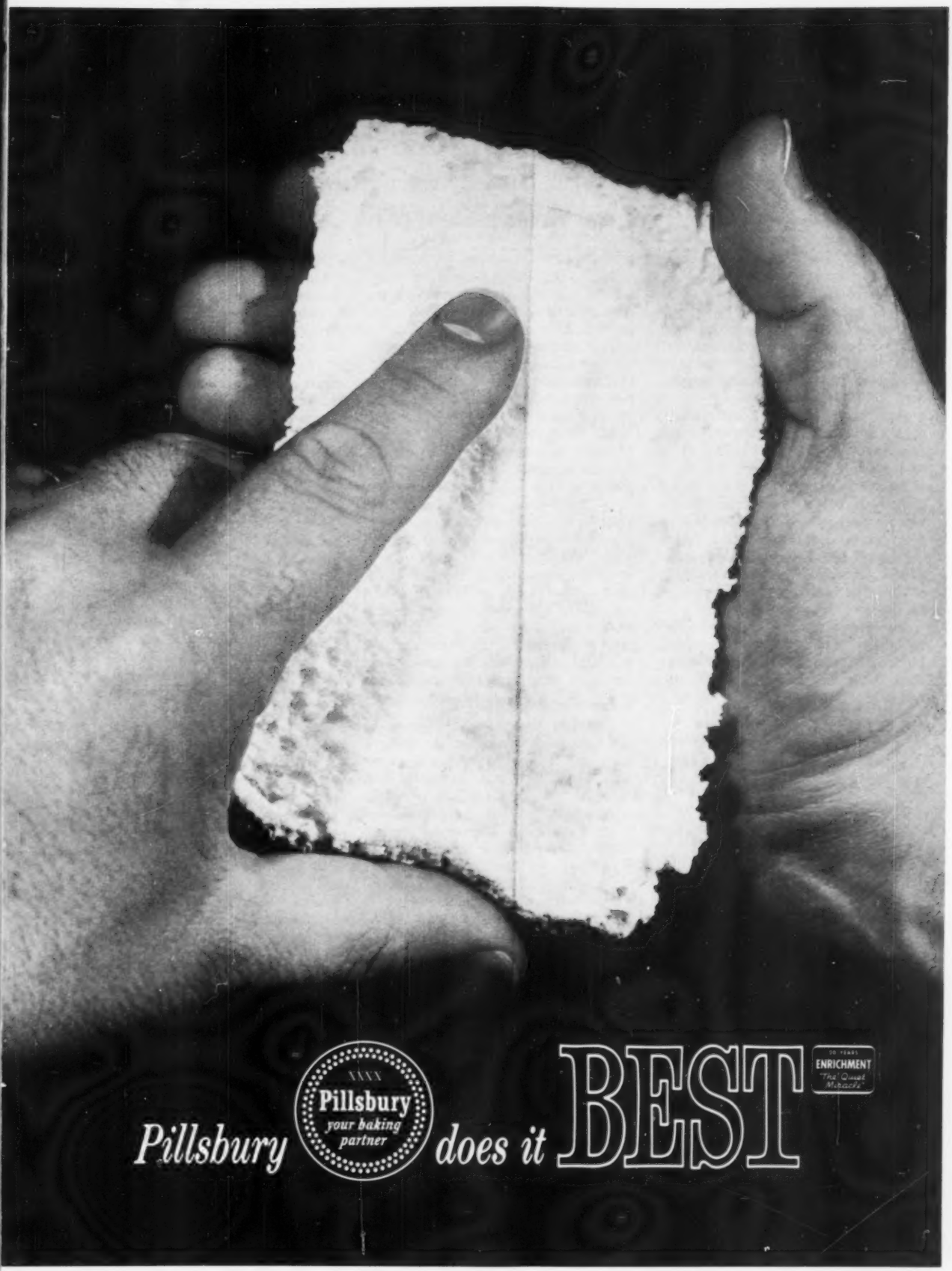
Never again will you have to make costly changes in your baking formulas when you get a shipment of "new crop" flour. "Turbo-Milling" lends nature (and you) a helping hand by leveling out crop changes . . . minimizing adverse influences of climate, soil and constantly changing wheat quality.

Each shipment of "Turbo-Milled" Sno Sheen you get, from year to year, will perform like the last one, regardless of the nature of the current wheat crop.

Each batch of cakes you bake from week to week will be exactly like the last one: the BEST.

Pillsbury made sure it would be that way—before introducing the first "Turbo-Milled" flours six years ago.

The only "Turbo-Milled" high-ratio cake flour: Sno Sheen.


Pillsbury
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10 YEARS
ENRICHMENT
"The Quiet Miracle"

Evaluation of Phosphine Gas as a Fumigant

For Shelled Yellow Corn Stored In Concrete Silo-Type Storage

By HARRISON E. McGREGOR

NO INFORMATION has been available as to the efficiency of phosphine gas for control of insects in stored shelled corn. Accordingly, when several silo-type tanks of shelled corn became available for fumigation tests with phosphine at Crete, Neb., these tests were conducted during September, 1959.

Four tanks of No. 2 yellow corn at a temperature of 72°-77°F. were fumigated. The dosages and amount of corn are given in Table 1.

Prior to fumigation, ⅛-in. (inside diameter) polyethylene tubing was placed in each bin so that gas samples could be drawn at 20-ft. intervals from the bottom ot the surface of the corn. Gas samples were taken at 24, 48, 72, and 96 hours after fumigation.

The corn was moved from one tank to another and the aluminum phosphide tablets were distributed evenly throughout the corn mass as the corn ran into the tank. The grain conveyor was totally enclosed in the elevator gallery so that it was necessary to drop tablets into the grain stream as the corn left the conveyor and dropped into the bin.

Test insects used in the study were adult confused flour beetles (Tribolium confusum Duv.), and immature rice weevils (Sitophilus oryzae (L.)), inside wheat kernels. Thirty-three confused flour beetles and eight grams of wheat heavily infested with the immature stages of rice weevil were placed in each wire gauze insect cage. The caged insects were placed in small cloth bags filled with wheat. Five cloth bags containing the caged insects were placed at each of six locations in each bin: At the bottom; at the 80, 60, 40, and 20 ft. levels; and on the surface of the corn. Different colored bags were used at each level to facilitate identification of the test bags as they were recovered from the corn after fumigation.

Insect Exposure

The test insects were exposed in the fumigated grain for seven days, then test bags were recovered as the corn was moved from fumigated bins to other bins, or directly to the mill.

Mortality of the adult confused flour beetles was determined immediately. After the first mortality count was made, the confused flour beetles were placed in 1⅞ x 1⅞ x ⅞ in. plastic boxes with a small amount of enriched wheat shorts. Upon arrival at the Manhattan laboratory, the test insects were placed in a rearing room where the temperature was 80°F. and the relative humidity 70%. Mortality counts were made at seven and 14-day intervals to determine if there was any recovery of the confused flour beetles. There was no recovery.

The amount of phosphine gas in p.p.m. found at periodic samplings from various depths following fumigation with phosphine gas at dosages of 2, 3, 4, and 6 aluminum phosphide tablets per ton is shown in Table 2.

Wheat infested with immature rice weevils was also placed in plastic boxes and held in the rearing room for six weeks before emergence count was made.

Conclusive Results

Results of this test were conclusive. A 100% mortality of both confused flour beetle adults and immature rice weevils was obtained at each dosage rate used. An average of 91 rice weevils emerged from each insect cage recovered from the untreated control bin, and 91% of the confused flour beetles survived the seven-day exposure in the untreated control bin.

The gas analysis tests showed the phosphine gas to be distributed to all sampling points in the grain mass. It may be noted in Table 2 that high concentrations of gas were found in the central portion of the grain mass and lower concentrations resulted in the bottom and surface areas. The lowest dosage of 2.3 tablets per ton produced only a trace of gas in the surface grain throughout a period of 96 hr.; this, however, was sufficient

Mr. McGregor is with the stored grain insects laboratory at Manhattan, Kansas. This is a field station of the stored product insects branch, market quality research division, Agricultural Marketing Service, U.S. Department of Agriculture. Mr. McGregor wishes to acknowledge assistance given him by the Lauhoff Grain Co., Crete, Neb., in making available the shelled corn for the tests, and to Hollywood Termite Control Co., Los Angeles, for supplying the fumigant.

TABLE 1

Quantity of Grain Bushels	Dosage in tablets per 1,000 bu.[1] Number	Quantity of Grain Tons	Dosage in tablets per ton[1] Number
16,665	57	411	2.3
18,082	94	502	3.4
18,799	121	526	4.3
19,336	176	541	6.3
14,637	Check-No treatment	410	Check-No treatment

[1]It was intended to apply 2, 3, 4 and 6 tablets per ton.

to cause complete mortality of the test insects in that location.

Gas concentrations were not taken in the basement, but at no time during the fumigation or turning the grain to recover the test insects was there any objectionable odor in the basement of the elevator. Gas could be detected by odor in the gallery, or Texas floor, early in the morning, but no odor could be detected after the windows and doors were opened for a period of 30 min.

Aluminum phosphide tablets as used in these tests have been accepted for registration under the Federal Insecticide, Fungicide, and Rodenticide Act, and have been considered by the Food and Drug Administration on a no-residue basis, so it has not been necessary to establish a tolerance. «

TABLE 2

Interval Hours	Depth in Tank: Surface p.p.m.	20 feet p.p.m.	40 feet p.p.m.	60 feet p.p.m.	80 feet p.p.m.	Bottom p.p.m.
2.3 Tablets per Ton						
24.....	Trace[1]	860	860	516	172	172
48.....	Trace[1]	1,290	1,376	1,290	602	172
72.....	Trace[1]	1,376	1,720	602	516	172
96.....	Trace[1]	1,032	1,118	430	172	86
3.4 Tablets per Ton						
24.....	172	3,612	2,752	3,096	860	516
48.....	258	3,096	2,150	1,376	516	430
72.....	430	2,322	3,612	1,290	516	430
96.....	430	2,752	1,720	860	430	430
4.3 Tablets per Ton						
24.....	86	3,440	5,418	2,580	3,096	1,892
48.....	172	5,762	5,762	3,526	1,720	430
72.....	Trace[1]	4,300	4,558	2,580	860	430
96.....	86	3,354	3,956	2,322	860	602
6.3 Tablets per Ton						
24.....	172	6,450	9,460	7,310	2,924	2,580
48.....	344	7,310	7,998	7,310	2,408	2,752
72.....	860	5,590	8,858	5,332	1,376	860
96.....	430	5,246	4,472	3,354	2,580	946

[1]Less than 86 p.p.m.

Abstract

Five silos of No. 2 yellow shelled corn at a temperature of 72°-77° F. were used in an evaluation of phosphine gas as a fumigant. The phosphine was released from aluminum phosphide applied in tablet form. One bin was left as an untreated control and the other four were treated at 2, 3, 4 anad 6 tablets per ton.

Test insects, adult confused flour beetles and immature rice weevils, were exposed in the fumigated grain for seven days. The amount of phosphine gas was determined at 24, 48, 72 and 96 hours from the surface, bottom and 20-foot, 40-foot, 60-foot and 80-foot depths.

A 100% mortality of both confused flour beetle adults and the immature rice weevils was obtained at each dosage rate used. The gas analysis tests showed the phosphine gas to be distributed to all sampling points in the grain mass.

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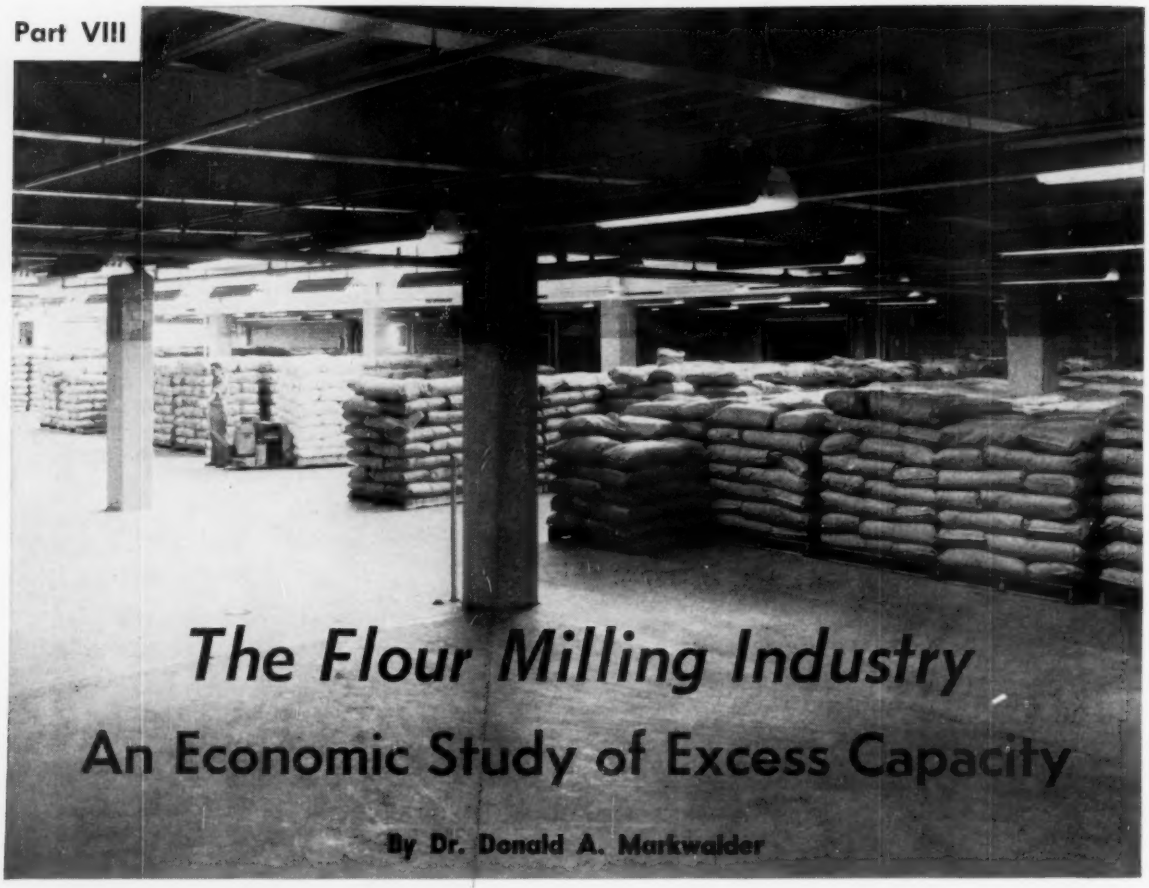
Part VIII



The Flour Milling Industry

An Economic Study of Excess Capacity

By Dr. Donald A. Markwalder

TURNING TO early census data on output, we find (Table I) that the census of 1899 listed 9,835 mills, each having an output below 10,000 cwt. in that year. If we assume 300 working days in the year, this means each mill produced an average of less than 34 cwt. per day. Adding the 2,584 mills which produced between 10,000 cwt. and 40,000 cwt. flour each in 1899 gives us a total of 12,419, small mills which produced 72.2 million cwt. flour, or 35.7% of all flour produced that year.

TABLE I

Production of Wheat Flour by Small Mills of Various Size Classes in 1899 and 1935

(000,000's cwt.)

		Mills Producing Annually		
Year	All Mills	10,000 to 40,000 cwt.	2,000 to 10,000 cwt.	Under 2,000 cwt.
1899	202.9	46.8	22.1	3.3
1935	198.5	8.8	4.8	1.8

By 1935 total output of these smaller mills had declined to 15.4 million cwt., 7.6% of total flour output, remarkable evidence of the increase in mill size which occurred. Decline of the small mill has continued to the present time, and during 1956 mills of less than 400 cwt. daily capacity[1] are estimated by the Bureau of the Census to have produced less than 3% of U. S. flour output. The last year a complete canvass of small mills was made was 1951, when 651 mills had a capacity of less than 400 cwt. In that year the total number of mills was 1,028. Thus it appears that less than 37% of all mills produced—and are producing—97% of U. S. flour output.

Of some significance are regional differences which existed (and still do) in importance of flour output of the small mills.

West of the Mississippi River flour production began later, and relative importance of the small mill was never so great as in the South and East. For example, in Kansas in 1910 a miller stated that plants of less than 1,000 cwt. capacity simply "could not compete,"[2] but production of mills with a daily capacity of less than 1,000 cwt. was still 36.5% of the output of the state.[3] By 1919, however, mills with a daily capacity of 400 cwt. or more were already producing 95% of the output of the state. During the 1956-57 crop year mills of this size produced 99.7% of Kansas' flour output.

On the other hand, in 1959 more than one-fourth of all flour produced in each of the states of Pennsylvania, Virginia, West Virginia and North Carolina came from mills producing less than 10,000 cwt. of flour annually —fewer than 34 cwt. per working day![4] This regional difference in relative importance of small mills continues to exist, explained by the fact that those in the Southeast produce primarily family flour for a small local or regional market, while the "natural" market area of mills in the Southwest includes most of the U. S.

Economics of Scale

Reasons for decline in importance of the mill having a capacity of less than 1,000 cwt. are numerous. The two most important are the existence

[1]This, in general, includes all mills not producing more than 40,000 cwt. flour annually.

[2]Nourse, p. 191.

[3]"The Millers' Almanack and Year Book," 1920, p. 145.

[4]"Wheat Studies of the Food Research Institute of Stanford University," April, 1936, p. 292.

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of technological economies of scale[5] and the decreasing importance of the family flour market.

The firm producing family flour is subject to most (but not all) technological economies of plant scale as is the firm producing bakery flour, but this does not mean that a small, high-cost plant which could not survive in the bakery flour segment (and particularly the hard wheat bakery flour segment) cannot survive in the family flour segment.

The mill-brand family flour market is oligopolistic, and gross margins are generally considerably larger than in bakery flour. The firm which has a well established brand may produce its flour in a high cost plant; but this same firm may be moderately profitable because its advertising and promotional expenditures are low, and it has a wheat price advantage.

This actually appears to be the case with a considerable number of family flour firms. One may ask why these high-cost plants are not replaced with modern low-cost plants. The answer is that family flour demand has been declining at an increasing rate. Firms hesitate to build new plants for the exclusive production of family flour because demand has been declining so rapidly, and hesitate to build plants which may have to be used to produce bakery flour when there is excess capacity in the industry.[6] Thus, the flour firm may continue to show profits on historical costs—even though its output progressively declines—because its plant and equipment are largely, if not completely, depreciated.[7] In fact, plants and firms which produce predominately family flour do so at higher costs and operate at a lower percentage of capacity[8] than do exclusively bakery flour firms.[9]

Other factors which have contributed to the decline of small mills are:

1. Demand has not increased in the local markets of most small mills as rapidly as in the industry as a whole. This is because small mills have been predominately located in rural regions, while most of the population growth in the U. S. has taken place in cities, especially metropolitan areas.

2. Most larger mills (above 1,500 cwt. daily capacity) have extensive laboratories to maintain precise quality control, while the small mills have their flour tested by independent flour testing laboratories.

3. Cheaper, more efficient transportation and extensive advertising have made it possible for large, low-cost firms to enter geographically isolated markets of small mills.

4. Small rural mills have traditionally paid significantly lower wage rates than the predominately urban large mills, but interviews with owners of small mills indicate that this wage rate differential is declining.[10]

5. In the bakery flour segment, smaller mills are finding it difficult to justify investment required for bulk storage and transportation of flour as bakeries convert facilities to handle bulk flour.

6. In the family flour segment, capital expenditures required for au-

[5]Although Bain (p. 229) suggests that "the minimum optimal capacity is probably not beyond 1,000 cwt. and may be as small as two thirds of this," evidence will be presented later that this estimate is much too low.

[6]One solution to this enigma is for the family flour firm to have some of its output produced by a firm which does have a low cost plant or plants and some excess capacity. This has happened in more than one instance.

[7]For example, in 1951 a moderately prosperous family flour mill in Minnesota of 100 cwt. capacity was still using machinery purchased between 1877 and 1894. "The Northwestern Miller" Feb. 13, 1951, p. 1a.

[8]That plants which produce primarily family flour operate at a lower percentage of capacity than do plants which produce bakery flour is indicated by Table II. This table merely shows that the percentage of capacity at which mills operate increases as mill size increases; however, as we have pointed out, most mills which produce primarily family flour are small.

[9]This fact is partially to be explained by the relatively isolated location of many family flour plants.

[10]Two of the small mills which the author visited were at that time closed by organizational strikes.

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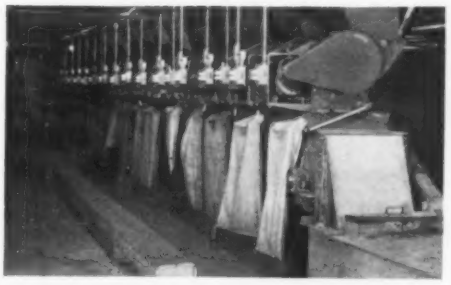

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Excess Capacity Study (continued)

tomatic packing machinery have recently caused several predominately family flour mills to exit.

Percentage of Capacity

Evidence tending to show economies of scale existing in the flour milling industry consists not only of decline in importance of small mills but also of the fact that percentage of capacity at which mills operate increases as mill size increases. For example: In Kansas as early as the 1910-11 crop year mills with a daily capacity of less than 200 cwt. operated at only 22% of capacity; mills with a capacity of between 400 and 999 cwt. operated at an average of 52% of capacity; those with a daily capacity of 1,000 cwt. and over operated at an average of 60% of capacity.[11] For 1945 the percentage of capacity at which mills of various size classes operated is shown in Table II.

It can be seen from Table II that the percentage of capacity at which mills operated continuously increased until the size group containing mills with a daily capacity in excess of 8,000 cwt. was reached. The smallest mills—those with a daily capacity of 400 cwt. or less—had higher milling costs, and even used an average of 6.7 lb. more wheat per cwt. of flour than did mills of the largest size group.[12] This table is in general agreement with data for other years showing the percentage of capacity at which mills of various capacity groups operated.[13]

Almost all data shows that technological economies of scale in milling extend at least to plants with a daily capacity of 6,000 or 7,000 cwt.

The most likely explanation for the fact that mills with a daily capacity of in excess of 8,000 cwt. generally operate at a slightly smaller percentage of capacity than do mills of the 6,000 to 8,000 cwt. category is that the larger mills are on the average somewhat older. It does not appear to result from any technological diseconomies that these largest mills operate at a slightly smaller percentage of capacity because most of these large mills contain more than one mechanical unit.

Optimum Size

While the technological optimum size for a mill appears to be in the neighborhood of 6,000 cwt., this does not signify a practical optimum toward which the industry is tending. Transportation costs must be considered. When they are, the technological efficiency of a large mill may be off-set by higher transport costs. The practical average optimum size (for all regions) for a mill may be only slightly in excess of 2,400 cwt. It definitely is not less, since the output of mills of all smaller size classes is still declining.[14]

Engineering studies for newly designed plants confirm the conclusions which can be arrived at from the Bureau of Census data showing the relationship between mill size and percentage of flour extraction.

The percentage of flour extraction continuously increases as mill size increases up to 6,000 cwt. daily and then begins to show a slight decline. It is evident, however, that the per-

[11] "The Millers' Almanack and Year Book," 1920, p. 145.

[12] Bureau of the Census, "Facts for Industry, Flour Milling Products," Summary for 1945 (Washington, D.C.; Government Printing Office, 1946).

[13] The percentage of capacity at which a plant operates is influenced by factor prices and the slope of the relevant revenue curve as well as technological efficiency of the plant. Larger plants tend to operate at a greater percentage of capacity than smaller plants because the larger plants are located in more competitive markets, and because they are technologically more efficient.

[14] For example, between 1950 and 1956 the output of mills having a daily capacity of between 401 and 2,400 cwt. fell by 13.1 million cwt., or 29%, even though total ouptut rose by 4.9 million cwt.

TABLE II
Flour Output as a Percentage of Capacity for Mills of Various Sizes

Capacity Group (cwt.)	Output as a Pctge. of 306-day Capacity
Under 400	23.3
401-800	42.4
801-1,200	61.4
1,201-1,600	68.5
1,601-2,400	80.6
2,401-3,200	84.4
3,201-4,000	86.0
4,001-6,000	88.7
6,001-8,000	96.1
Over 8,000	89.6

Source: Bureau of the Census, Facts for Industry, Flour Milling Products, Summary for 1945 (Washington, D.C.; Government Printing Office, 1946).

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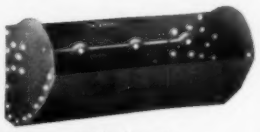
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centage of flour extraction increases at a declining rate with any increase in mill size. Thus, while a mill of 50 cwt. daily capacity can secure 67% extraction and one of 300 cwt. can secure 69% extraction, capacity must rise to 1,400 cwt. before the rate of extraction reaches 71%, and to 3,600 cwt. before reaching 72%.

The cost saving which a firm obtains by increasing its rate of extraction by 1% depends upon the spread which exists between flour prices and millfeed prices. Recently wholesale bakery flour prices in the Midwest averaged approximately $5.50 cwt., or 5.5c lb., while millfeed prices averaged $40 ton, or 2c lb. Thus, the cost saving which a firm secures by increasing its rate of extraction by 1% is approximately 2.5c for every 100 lb. wheat milled or 3.5c for 100 lb. flour produced. This saving may not seem extremely large, but considering the fact that net margins (net profits before taxes) have averaged only 5.6c cwt. of flour produced for the nine crop years ending June 30, 1957, it is very large indeed.

Since larger milling plants secure a higher rate of flour extraction than do small plants, and since the cost of wheat is by far the largest element of material costs, we would expect material costs per hundredweight of flour to continuously decline as firm (and plant) size increases.

Because the cost of containers makes up most of the non-wheat materials costs, it is possible that the cost of containers could vitiate this conclusion if container costs progressively increased as firm and plant size increased.

We know, however, that the cost of containers per unit of output declines as mill size increases because family flour sales of small mills constitute a larger percentage of total sales than for large mills[15] and because larger mills ship a significantly greater percentage of their flour in bulk than do small mills. Nevertheless, we find that there is actually no systematic relationship existing between mill size and material costs.

In addition to the high percentage of the sales of the small mill which consists of family flour, one reason for survival of small mills—in spite of their operation at such a small percentage of technological capacity—is their ability to buy wheat at lower prices than do large mills. Larger mills are located in more competitive terminal wheat markets, but most of the smaller mills possess some degree of geographical wheat price insulation. In addition, many smaller mills secure high millfeed prices on at least some of their output by selling at retail to farmers in the immediate vicinity.

Ability of the small mill to survive is not brought about by lower manufacturing costs. The larger plants and firms do secure lower manufacturing costs. It is difficult to compare the non-manufacturing costs of different plants and firms because product quality and channels of sale vary so greatly, but this difficulty does not arise in comparing manufacturing costs. The category "manufacturing costs" includes power costs, plant labor costs, and the cost of depreciation and repairs. Thus, the manufacturing cost savings secured by the larger mills are above and beyond those cost savings resulting from the fact that they produce a larger quantity of flour from each bushel of wheat. «

[15]Bureau of Census, "Facts for Industry, Flour Milling Products," Summary for 1945, p. 6.

In Part IX Dr. Markwalder takes up the subject of size and location of plants actually constructed. He discusses the reasons why flour mills are built in specific locations, giving consideration to such factors as available transportation and milling in transit.

AIB Schedules 1961 Maintenance Course For Plant Personnel

The 10th annual short course in bakery equipment maintenance will be held Sept. 18-23 at the American Institute School of Baking in Chicago. More than 30 guest lecturers and staff members are expected to participate.

Designed for plant engineers, maintenance supervisors and supervision trainees, the objective of the course will be to meet the baking industry's need for skilled maintenance departments.

Workshops, tours, lectures and group discussion will be utilized to gain maximum student participation and to give practical instruction. Topics to be covered will include preventive maintenance programming, packaging, refrigeration, equipment controls, electrical maintenance, sanitation, special equipment and management supervision. Students will tour large wholesale cake and bread bakeries and a major variety retail bakery.

Information on the contents of the course, eligibility, the faculty and admission requirements may be obtained by contacting the registrar, American Institute of Baking, 400 E. Ontario St., Chicago 11, Ill. «

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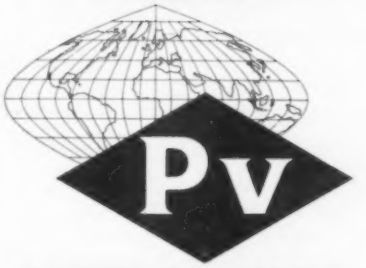

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How to Enjoy Hot Dogs and Hamburgers

with relish

By DIANA DENECKE

A SALUTE to the hot dog and the hamburger!

How would we get along without 'em?

They're stand-bys on the family's weekly menus—kids love 'em, and they're easy on the budget. What's more, every bun that moves off the shelf boosts business for everyone down the line, the grain man, the flour miller and the baker.

Whether the meat inside is boiled, broiled, fried, grilled or roasted, the end products on light toasted buns are easy to prepare on a moment's notice. And they're international favorites—plain or "with the works." Served with a flourish and a relish, they're good company fare, too.

When shopping for meat for 'burgers, experiment a bit to see what flavor suits the family best . . . ground beef, ground round, hamburger or ground chuck. Those are various names the butcher gives to the ground meat, and shops differ, of course. Many good cooks prefer ground chuck as being juiciest and most flavorful, without too much fat.

You can choose bakery buns to your preference these days, too. In addition to the favorite white buns, the selection includes sesame seed, rye, onion and cheddar cheese buns.

But store bought or homemade, relishes turn the hot dog or hamburger into an individual meal on a bun. Some remain loyal to mustard or catsup; others pile on everything in sight . . . chili sauce, pickle relish and the thick slices of onion (mild, dilled slices come ready prepared). Then there's the cheeseburger and the California-burger, both enhanced by a side tray of cherry tomatoes, dressed with vinegar and crushed basil, and sliced cucumbers, sprinkled with salt and dill weed.

How about putting cheese, relishes or chopped olives in between two thin meat patties, pressing the edges together and grilling as usual? Surprise! And for the outdoor grill, try preparing the raw ground meat with chopped onion and an egg, then bast while charcoaling with dry vermouth. It keeps the meat moist and gives it a wonderful flavor.

Here are some favorite childhood memories: Thin slices of hard green tomatoes, lightly fried in butter and tucked inside as the garnish for hamburgers . . . rainy day hot dog roasts over the flame of the gas stove . . . the Sunday night special—hot dogs slashed and filled with cheese, wrapped in bacon and broiled . . . and the spicy fragrance of pickles and relishes simmering on the stove on a hot summer day.

Though home canning itself has simmered down since advent of the wonderful variety of items on the market, any of these favorite relish recipes are worth the time:

SPICY CHILI SAUCE

7 lb. ripe red tomatoes
1 large clove garlic, peeled
1 lb. onions, 1 cup ground
½ lb. green chili peppers, 1 cup ground
1 small bunch Pascal celery, 1 cup ground
1 cup 5% cider vinegar
⅓ cup sugar
1½ tbsp. salt
1 tsp. crushed whole white or black peppers
1 tsp. crushed dried oregano

Choose solid tomatoes and wash; dip in boiling water to loosen skins. Remove skins and cores. Cut tomatoes into ½-inch dice, dropping into colander over a 6-qt. aluminum or enamelware preserving kettle.

Drain 30 min. There should be about 3 cups juice. Peel garlic and onions. Wash peppers and remove stem and seed cores. Wash celery, remove strings; cut into half-inch lengths.

Put all vegetables except tomatoes through food chopper separately, using coarse blade. Measure each and add to tomato juice in kettle and boil gently until vegetables are tender—15 to 20 min.

Add drained tomatoes, vinegar, sugar and salt; boil moderately fast 30 to 40 min., stirring frequently. Now add crushed peppers and oregano tied loosely in a bag. In 2 or 3 min. taste to determine when enough pepper and oregano flavor is extracted to suit taste. Remove bag, simmer, stir often until thick, about 45 min. Pour into sterile jars. Seal with glass or enamel-lined lids. 2½ pts.

CORN RELISH

1 quart raw corn
3 cups cabbage
1 cup stalk celery
2 green peppers, seeded
2 red peppers, seeded
1 onion
1 cup sugar

2 tbsp. salt
3 tbsp. dry mustard
3 cups vinegar

Grind or chop the first 6 ingredients, add rest of the ingredients, cook until corn is tender (about 15 min.). Bottle and seal.

GREEN TOMATO PICKLES

1 peck green tomatoes, sliced
¼ peck onions, sliced
¾ cup salt
4 red peppers, chopped
½ gallon cider vinegar
2 lb. brown sugar
1 tbsp. white mustard seed
2 stalks celery, cut
2 tbsp. stick cinnamon
2 tbsp. cloves, heads removed

Mix tomatoes with ½ cup salt and onions with ¼ cup salt. Let stand overnight, drain. Tie spices in a bag and place in a kettle with the vinegar and sugar; heat to the boiling point, add other ingredients and simmer slowly for 20 min. Put into sterilized jars and seal.

BEET AND HORSERADISH RELISH

2 qts. boiled beets, chopped
2 qts. cabbage, chopped
1 cup horseradish, grated
2 cups sugar
2 tsp. salt
pepper to taste

Wash beets, cut off leaves, leaving 1-in. stem and root to preserve color. Cook in boiling water until tender, about 1 hr. Peel and chop beets. Mix ingredients, add cold vinegar to cover, and place in gallon jar. Will keep refrigerated. «

Officers Elected By GEAPS Chapter

Robert C. Edgren, Continental Grain Co., has been elected president of the Chicago Chapter, Grain Elevator & Processing Superintendents. Mr. Edgren was elected at the chapter's June meeting held at Midlothian (Ill.) Country Club.

W. Everett Sallman, Central Soya, was named first vice president; Melvin R. Hecker, Complete Electric Supply Co., second vice president, and B. Ward Peterson, Cargill, Inc., as secretary.

Directors named to serve for one year are: James A. Anderson, Cargill; Raymond L. Ohle, Northwestern Malt & Grain Co.; Gunter Goldschmidt, Continental Grain; David G. Goodwin, Hyre Electric Co., and Benjamin M. Presthold, Link-Belt Co. «

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A Pneumatic Installation

Making Tradition Match Today, Hayden Flour Mills Has Blended Historic Background With a Modernization of Plant Facilities—and Capacity Has Increased

A FLOUR MILLING COMPANY steeped in history and romanticism has gone modern. Hayden Flour Mills, Tempe, Ariz., has now started up its completely modernized plant, jumping capacity from around 500 cwt. to 1,000 cwt., basis 24 hours of operation.

Doing the engineering work and supplying the major portion of the new equipment was the Simon-Carter Co. of Minneapolis. Directing the work of refurbishing to produce this spanking new mill was Irv Manley, mill superintendent.

New sifters and purifiers, plus a complete pneumatic conveying system for all mill stocks and products, have helped increase capacity and efficiency. And a plus value is the great saving in space resulting from the installation of pneumatics. Moreover, sanitation and dust control is easier in the rehabilitated plant, experts declare.

General manager of the firm, Hayden C. Hayden, praised the ease with which the changeover was accomplished and specifically stressed the rapidity with which the work was completed by the Simon-Carter engineers.

Founded in 1872, the products of the mill have established a wide acceptance for themselves in the area —a favorite brand in those parts is Arizona Rose Flour.

The mill was established in 1872 by Charles Trumbell Hayden and in those days Tempe was known as Hayden's Ferry. He had established a ferry service to cross the then fast flowing and turbulent Salt River. In addition, he was instrumental in planning the canal that was constructed round the foot of the butte and the river water was diverted through the canal to turn the mill wheel.

One of Charles Hayden's sons is the venerable aand revered senator from Arizona, Carl Hayden, dean of Congress. Another son carried on the milling business and, in turn, his sons are continuing the business—making tradition match today. In addition to Hayden C. Hayden, Larry Hayden is engaged in the business as sales manager.

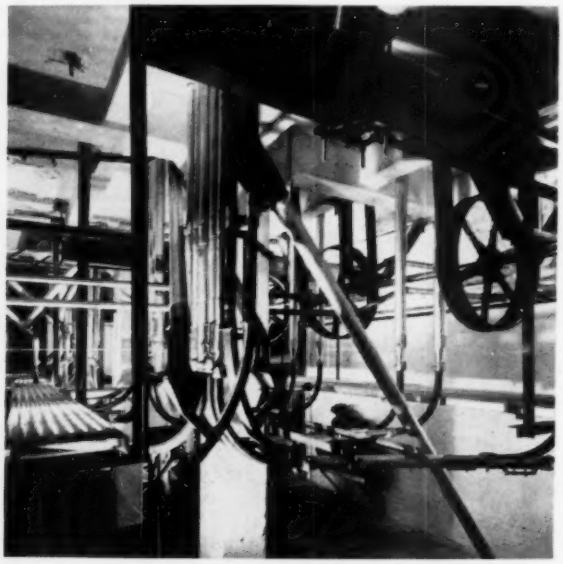
And here is where romanticism comes into the prosaic business of making flour. In 1870, Charles Hayden built a storehouse of mud and wattles to serve as ferry headquarters. Few were the buildings in the valley at that time and the residents were mainly Indians and Mexicans. Mr. Hayden became known as Don Carlos and was a highly respected figure in the area. In 1871, he replaced the hut with a magnificent hacienda, La Casa Vieja—Spanish for The Old House.

The hacienda followed the Spanish colonial mansion pattern and was built round a large patio with ramadas for supplies in the rear. Following the custom of the day, the hacienda opened its doors to wayfarers in need of a meal or a place to spend the night.

In 1876, Don Carlos took as his bride a beautiful southern girl, Sallie Davies, and it was there that Sen.

Before

A VIEW OF THE BASEMENT BEFORE MODERNIZATION

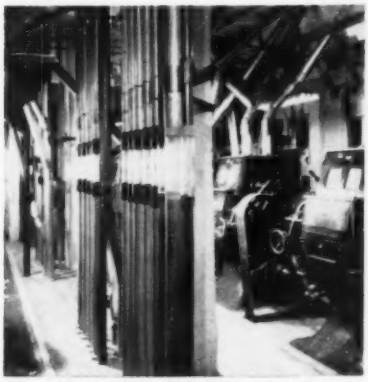


After

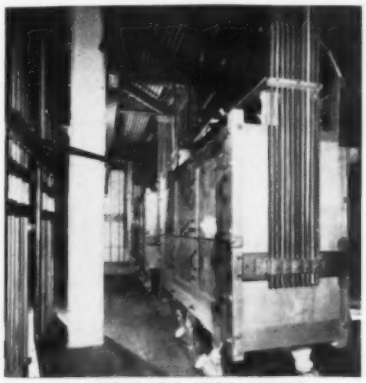
THE SAME SCENE WITH PNEUMATICS INSTALLED

Hayden was born in 1877. A delightful hostess, Mrs. Hayden had a flair for making people happy and comfortable and she saw her family become among the best known in the state of Arizona.

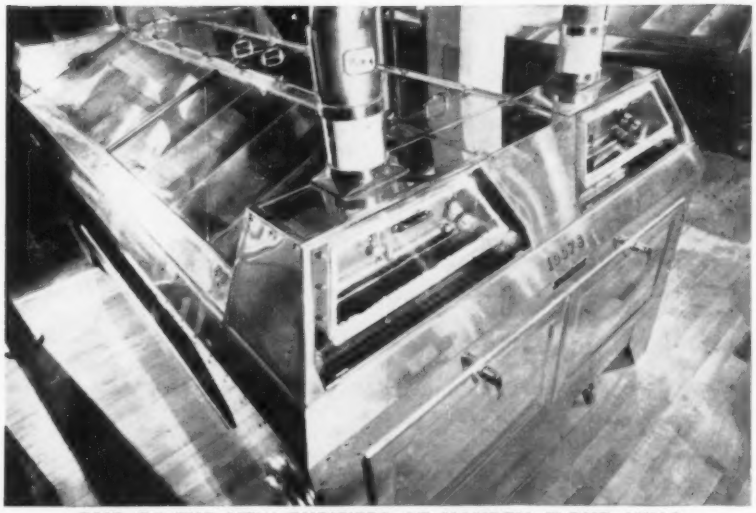
Today, La Casa Vieja is a restaurant, one of the best in the area, and the traditions of Hayden hospitality have been maintained . . . just as they are being maintained in the manufacture of good flour. «



ROLLER FLOOR ILLUSTRATING THE SPACIOUSNESS AND AIRINESS OF THE MODERNIZED PLANT



A VIEW OF THE SIFTER FLOOR AS IT NOW LOOKS



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The COLORADO MILLING & ELEVATOR CO.
General Offices: Denver, Colorado

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The Oldest Flour Brand in Kansas
Milled for Quality Bakers
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Wellington, Kansas

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for Millers and the Grain Trade
Holland Engraving Co.
Kansas City, Missouri

I-H
QUALITY MILLED FLOURS
Ismert-Hincke Milling Co.
Kansas City, Mo.

Moore-Lowry Flour Mills
INCORPORATED
Kansas City, Mo.
PRECISION-MILLED FLOURS

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Strategically located, Dannen furnishes all types of top-quality milling wheat from points throughout the entire winter wheat area. Over 25 million bushels of storage space in terminal elevators and twenty-six country stations is your assurance of dependable Dannen service.

Experienced wheat buyers, skilled in meeting the most exacting requirements, are anxious to serve you. Call today.

St. Joseph, Mo. ADams 3-6162
Kansas City, Mo. GRand-1-6212
Denver, Colo. ATlas 8-6659

DANNEN
GRAIN & JOBBING DIVISION—DANNEN MILLS, INC.

WHERE THEY ARE MEETING

June

June 25-27—New Hampshire-Vermont Bakers Assn., annual meeting; Wentworth Hall, Jackson, N.H.; sec., Calvin Gaebel, 214 Harvard St., Boston 34, Mass.

Lyon & Greenleaf Co.,
Incorporated
Millers of Quality Soft Wheat Flours
Since 1866
LIGONIER, IND.

FRANK H. BLODGETT, INC.
(SINCE 1848)
JANESVILLE, WISCONSIN
Millers of Rye and Buckwheat Flour

For Mills, We Recommend . . .
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BELT DRESSINGS
Specialized for Your Industry
WRITE FOR GENEROUS SAMPLES
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ROLL GRINDING
and CORRUGATING
Also NEW ROLLS for Sale
TWIN CITY MACHINE CO.
Minneapolis, Minn.

July

July 13-17—Bakery Equipment Manufacturers Assn., annual meeting; Bedford Springs Hotel, Bedford Springs, Pa.; sec., Raymond J. Walter, 511 Fifth Ave., New York 17, N.Y.

July 16-19—West Virginia Bakers Assn., 1961 convention; the Greenbrier Hotel, White Sulphur Springs, W.Va.; sec., Mrs. Edward R. Johnson, 611 Pennsylvania Ave., Charleston 2, W.Va.

August

Aug. 19—District 14, Association of Operative Millers; Denver, Colo.; sec., John Streit, Wallace & Tiernan, Inc., Denver.

September

Sept. 8—District 4, Association of Operative Millers; Minneapolis, Minn.; sec., W. R. Carter, R. J. S. Carter Co., 1219 Flour Exchange, Minneapolis 1, Minn.

Sept. 8-9—District 7, Association of Operative Millers; Lake Murray Lodge, Ardmore, Okla.; sec., Henry H. Stark, Ross Machine & Mill Supply Co., Oklahoma City.

George Urban Milling Co.
More Than 100 Years of Milling
BUFFALO, NEW YORK

Sept. 15-16—District 2, Association of Operative Millers; Aladdin Hotel, Kansas City, Mo.; sec., George Smutny, Entoleter, Inc., Kansas City.

Sept. 17-18—Wisconsin Bakers Assn., annual convention; Plankinton House, Milwaukee, Wis.; sec., Fred H. Laufenburg, 6173 Plankinton Bldg., 161 W. Wisconsin Ave., Milwaukee 3.

Sept. 17-19—Southern Bakers Assn., annual production conference, Atlanta Biltmore Hotel, Atlanta, Ga.; sec., Benson L. Skelton, Henry Grady Bldg., 26 Cain St., N.W., Atlanta 3, Ga.

Sept 23—District 8, Association of Operative Millers; Prudhommes Lodge, Vineland, Ont., Canada; sec., Roy F. Kehr, Kressilk Products, Inc., Depew, N.Y.

Sept. 23-25—Southwest Bakers Assn., annual convention; Hilton Inn., El Paso, Texas; sec., Ralph Kilgore, P.O. Box 127, Albuquerque, N.M.

Sept. 23-26—New Jersey Bakers Board of Trade, anniversary convention and exhibition; Essex House Hotel, Newark, N.J.; sec., Michael Herzog, 48 Claremont Ave., New Brunswick, N.J.

Sept. 24-26—Kentucky Master Bakers Assn., annual convention; Sheraton Gibson Hotel, Cincinnati, Ohio; sec., Al Wohlleb, 743 Loretto St., Louisville 11.

Sept. 29-30—District 9, Association of Operative Millers; Davenport Hotel, Spokane, Wash.; sec., Richard Schmidt, Centennial Mills, Inc., Spokane.

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UNION TERMINAL ELEVATOR
ST. JOSEPH, MO.

Specializing in milling wheats and all grains with definite rate and other advantages of St. Joseph location.

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St. Joseph, Mo.

CHRISTOPHER HARRIS
Treasurer and Manager

OFFICERS:
Frank A. Theis, President
Harry M. Stratton, Vice Pres.
John F. Stratton, Vice Pres.
F. J. FitzPatrick, Vice Pres.
W. C. Theis, Secretary

October

Oct. 4-7—National Bakery Suppliers Assn., annual meeting; Hotel Shelburne, Atlantic City, N.J.; sec., William Effron, Effron Bakery Supply Co., Poughkeepsie, N.Y.

Oct. 7-12—1961 Baking Industry Exposition; Convention Hall, Atlantic City, N.J.; sec.-treas., Harold Fiedler, 20 N. Wacker Drive, Chicago 6, Ill.

Oct. 13-14—District 6, Association of Operative Millers; Lowell, Mich.; sec., Oscar J. Nelson, King Milling Co., Lowell, Mich.

Oct. 20-21—District 3, Association of Operative Millers; Danville, Ill.; sec., Hollis Maun, Jr., M.M.C. Sales Corp., Dover, Ohio.

Oct. 21-22—Nebraska Bakers Assn., annual convention; Sheraton Fontenelle Hotel, Omaha, Neb.; sec., L. F. O'Konski, Jr., 1806 Chicago St., Omaha.

Oct. 27-28—District 11, Association of Operative Millers; Barringer Hotel, Charlotte, N.C.; sec., James N. Campbell, Sterwin Chemicals Inc., Charlotte, N.C.

November

Nov. 13-14—Washington Association of Wheat Growers, annual convention; Walla Walla, Washington; sec., Geo. W. Johnson, Ritzville, Wash.

Nov. 13-14—New England Bakers Assn., fall convention; Sheraton-Plaza Hotel, Boston, Mass.; sec., William E. Bowman, 945 Great Plain Ave., Room 9, Needham 92, Mass.

Nov. 17-18—District 12, Association of Operative Millers; Newhouse Hotel, Salt Lake City, Utah; sec., Joseph J. Keiser, Salt Lake City Flour Mills, Salt Lake City.

December

Dec. 9—District 2, Association of Operative Millers; Aladdin Hotel, Kansas City, Mo.; sec., George Smutny, Entoleter, Inc., Kansas City.

1962

January

Jan. 16-18—Hard Red Winter Wheat Workers, annual conference; Kellogg Center, Lincoln, Neb.; chairman, A. M. Schlehuber, Oklahoma State University, Dept. of Agronomy, Stillwater, Okla.

Jan. 28-30—Potomac States Bakers Assn., annual convention; Lord Baltimore Hotel, Baltimore, Md.; pres., Charles J. Schupp, 126 Mathieson Bldg., Baltimore 2.

February

Feb. 11-13—Pennsylvania Bakers Assn., annual convention; Bellevue Stratford Hotel, Philadelphia, Pa.; sec., Theo. Staab, 600 N. Third St., Harrisburg, Pa.

March

March 19-20—Grain and Feed Dealers National Assn., pre-convention secretaries' circle meetings; Denver-Hilton Hotel, Denver, Colo.; sec., Herbert L. Sharp, 401 Folger Bldg., 725 15th Street, Washington, D.C.

March 21-23—Grain and Feed Dealers National Assn., annual convention; Denver-Hilton Hotel, Denver, Colo.; sec., Herbert L. Sharp, 401 Folger Bldg., 725 15th Street, Washington, D.C.

April

April 26-28—Southern Bakers Assn., annual convention; Boca Raton Hotel, Boca Raton, Fla.; sec., Benson L. Skelton, Henry Grady Bldg., 26 Cain St., N.W., Atlanta 3, Ga.

April 29-May 2—Associated Retail Bakers of America, annual convention and exhibition; Bellevue-Stratford Hotel, Philadelphia, Pa.; sec., Miss Trudy Schurr, 731-735 W. Sheridan Rd., Chicago 13, Ill.

April 29-May 2—Millers National Federation, annual convention; Hotel Olympic, Seattle, Wash.; sec., John J. Sherlock, 309 W. Jackson Blvd., Chicago 6.

May

May 14-17—Association of Operative Millers, annual technical conference and trade show; Denver-Hilton Hotel, Denver, Colo.; exec. vice president, Donald S. Eber, 639 Board of Trade Bldg., Kansas City 5, Mo.

CALENDAR FOR 1961-62

JUNE

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Buffalo's Grain Business Shows Signs of Regaining Stability

By JOHN WATSON
Northwestern MILLER Special Correspondent

IS BUFFALO'S grain business—long a mighty financial force in the community's economic life—finding stability after being buffeted by such transportation innovations as the St. Lawrence Seaway?

In some ways it has stabilized, trade representatives believe; in others adjustments are still being made.

After sharp drops in recent seasons, waterborne grain shipments to Buffalo appear to have stabilized, and it is hoped that the annual volume should hold steady at about 65 million to 70 million bushels of grain. About the same amount is expected to come into the community each year by rail.

Virtually all of the grain arriving at Buffalo is for local mills or for storage in commercial elevators and ultimate delivery in domestic markets.

'Ex-Lake' Business

Buffalo's once flourishing "ex-lake" grain business—the trans-shipment of grain brought by water from the Upper Lakes and sent on from Buffalo via rail to eastern seacoast ports for export, is now virtually non-existent, however. Half a dozen railroads moved an average of 33 million bushels annually from Buffalo to the coast for export in the 25 years preceding opening of the St. Lawrence Seaway. But since the opening, an average of only about 2 million bushels has moved out of Buffalo annually by rail.

By way of background, Buffalo's geographical advantage as a trans-shipment point was threatened when the Mississippi River barges took over much of this traffic, and was lost when the Seaway opened its gates to big ocean ships.

The new water-borne routes have had little effect on rail deliveries to Buffalo elevators of grain from Illinois, Indiana, Ohio and Michigan. These traditionally have come by rail, and they account for about as much grain as the lake freighters now are carrying to Buffalo. Inbound rail shipments, like lake arrivals, are expected to hold firm at their current level, grain men report.

Lost Business

Now that the once-brisk "ex-lake" grain business is lost to Buffalo, elevator operators see little chance of ever regaining it.

They describe their loss as "simple economics," pointing out that a foreign customer saves about $40,000 on the average size shipload by having it shipped direct to him from the Upper Lakes, instead of trans-shipped through Buffalo. This "startling cost difference cannot be overcome at Buffalo," one elevator operator has said.

Narrowed down to a single bushel, cost comparison goes like this:

The new "direct handling route"—Duluth to, say, Antwerp-Rotterdam, costs 25½c bu. It costs 36c to send the same bushel of wheat by Great Lakes freighter to Buffalo, then by rail to, say, Baltimore, and across the Atlantic in an ocean freighter, according to Corn Exchange of Buffalo calculations.

Commercial elevator men state that they must rely now on the combination of government storage and domestic mill demands to stay in business. Although Corn Exchange records show a slight increase in "ex-lake" grain loaded for rail shipment to the East Coast for export, grain men point out that these figures represent "relocation of government grain stocks."

The 892,552 bu. sent to Eastern Seaboard elevators so far this year are described by grain men as "insignificant" in comparison with the 60,000,000 bu. annual "ex-lake" business which once flourished at Buffalo.

Government grain relocation is a "one-shot" operation, rather than a recurring one. There probably will be more relocations of this type affecting Buffalo, but will not significantly affect Buffalo's export grain business, and do not indicate a trend, grain men say. Such grain, when it leaves here, is not necessarily destined for immediate shipment to an overseas customer.

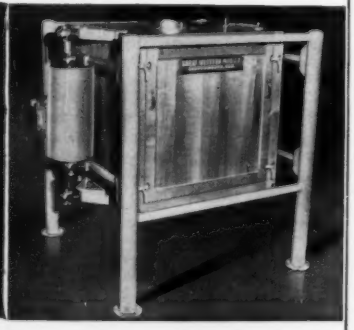
The government announced last August its intentions to increase its grain storage at East Coast elevators by 20,000,000 to 25,000,000 bu. Some of this is expected to include grain moved out of Buffalo elevators, with replacement grain brought in from the Midwest for storage at Buffalo. The relocation will increase stocks in commercial elevators along the coast and in idle maritime ships at anchorage in the Hudson and James Rivers. «

NEW!

FLOOR MOUNTED SIFTER

Sanitary — Tru-Balance For Quality Control

The TRU-BALANCE floor mounted SIFTER



It's new. A brand new sanitary sifting machine, developed by the Great Western Manufacturing Company for rebolting flour before packers or bulk loading operation. Also used for screening any dry materials. Feed dresser, grader, etc. Can make up to 8 separations if required. The most perfectly balanced floor mounted sifter made.

No vibration imparted to floor or building.

Write for complete details.

GREAT WESTERN Manufacturing Company

Ernest Schroeder **Leavenworth, Kansas** John E. Baker

Canadian Wheat Flour Output Shows Nine-Month Decline; April Production Also Dips

CANADIAN WHEAT flour output for the first nine months of the current crop year (August through April) and for the single month of April showed declines from the preceding year and the comparable preceding months.

Production for the first nine months amounted to 29,948,000 cwt. compared with 30,246,000 cwt. milled during the first nine months of the previous crop year. Of the total August-April production for 1960-61, Ontario winter wheat flour output accounted for 2,034,000 cwt., representing an increase over the 1,836,000 cwt. of this type produced during the first nine months of 1959-60.

For the single month of April, total Canadian output has been reported at 3,066,000 cwt., a decline of 9% from the March offtake of 3,386,000 cwt. Also, the April figure is 2% below April, 1960, total output of 3,142,000 cwt., and 11% below the 10-year average production (1951-60) for April of 3,455,000 cwt.

Ontario winter wheat flour included in the April total amounted to 205,000 cwt., also a gain, compared with 188,000 cwt. for April of 1960.

Mill Operations Reported

Mill operations for April averaged 79% of the daily rated capacity of 155,000 cwt., computed on a 25-day working period. By comparison, mills reporting in March averaged 84% of daily rated capacity, also 155,000 cwt., computed on a 26-day working period.

Wheat milled for flour in April totaled 6,863,000 bu., 3% less than the 7,073,000 bu. milled in April of last year. Ontario winter wheat included in the current April total represented 477,000 bu. against 447,000 bu. in April of the previous year.

Total wheat milled for flour during the first nine months of the current crop year was 67,435,000 bu., of which 4,737,000 bu. were Ontario winter wheat. During the corresponding period of the previous crop year 68,510,000 bu. wheat were milled into flour, of which 4,137,000 bu. were Ontario winter wheat.

Flour Export Figures

Due to the introduction of a new commodity classification effective Jan. 1, 1961, official wheat flour export figures are not yet available for March and April. But, according to an unofficial estimate, 1,500,000 cwt. were exported during April. This would make an estimated total of flour exports for the first nine months of the present crop year of 12,147,000 cwt. compared with an official revised figure of 11,827,000 cwt. for the corresponding period of the 1959-60 crop year.

Millfeed production for April, 1961, amounted to 51,000 tons, 4% less than the 53,000 tons produced in April, 1960. Total millfeed production during the first nine months of the current crop year amounted to 503,000 tons, compared with 512,000 tons produced during the similar period of the preceding crop year. «

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. . . are milled in our completely modernized Pneumatic Mill on the tested and tried flow that has made these flours front-ranking since 1901.

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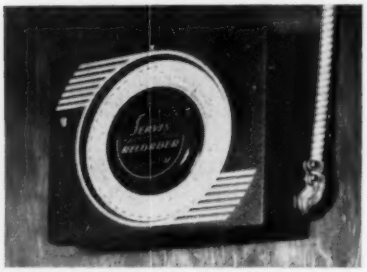
Filter Dust Collector

The use of high-velocity air through a specially contoured venturi to dislodge accumulated dust from filter elements of its Mikro-Pulsaire collector makes it "the only unit of its type designed with no moving parts, either internally or in the primary air streams," according to Pulverizing Machinery Co., manufacturer of the Mikro-Pulsaire "jet action" collector. The collector consists of a series of cylindrical filter elements enclosed in a dust-tight housing. Dust-laden air is admitted to the housing and clean air withdrawn from inside the filter-cylinders by a fan mounted either on the unit or on its own base. The air used to clean the elements is admitted automatically, producing a reverse flow. The jets are controlled by solenoid valves actuated by an electrical timer which can be adjusted to vary the cleaning cycle. The collector is available in five capacity sizes ranging from 63 sq. ft. to 510 sq. ft. of filter area. Additional capacity may be obtained by use of modular units erected to obtain any desired capacity. Details are available in Bulletin 52A-2.

Circle No. 4870
on Reply Form for Details

Recording Device

Service Recorder Co. has available an instrument to record the operating and non-operating time of almost any type of equipment. The device is the Servis Machine Time Recorder. One major grain firm is now using 70 Servis Recorders connected to fan



controls to determine proper fan operation and whether the fans actually were operating during the time scheduled. The company states that plant superintendents, terminal elevator department staff members and the research department can immediately check by charts automatically produced with the recorders to review and evaluate operations of the systems involved. Recorders are mounted in metal control cabinets out of doors, near the fans. Fan controls also turn the electrical recorders on and off. With the Model M and seven day charts, employees can pick up and replace charts on a convenient schedule even with storage bins at widely separated locations.

Circle No. 4871
on Reply Form for Details

Dust Respirator

Willson Products, manufacturer of industrial safety equipment, has introduced a "2-D" Nuisance Dust Respirator. Designed for a variety of

uses, the 2-D has extra large filter area and two recently developed valves for clean, unstrained breathing, states the manufacturer. A sanitary, disposable cotton liner fits the edges and enables exchange of the respirator from one worker to another. The face piece fits a variety of face shapes, and has a nose wire to permit maximum tight fit. Street glasses and goggles can be worn easily with the respirator, states the manufacturer. The unit comes complete with an extra supply of filters.

Circle No. 4872
on Reply Form for Details

Paper Retaining Strip

Bemis Bro. Bag Co. has developed an easy-to-install paper retaining strip to prevent slippage of rail-shipped products into storm doorways. The new retaining strips have no steel bands and require no special tools or materials, allowing faster, safer in-

stallation, it is claimed. Constructed of heavy duty extensible kraft paper, reinforced with fiberglas scrim and rovings, the retaining strips are installed across the doorway by built-in nailing strips. The strips are nailed at random to the car wall about six inches from each side of the doorway, allowing bypass of wall parts which have been splintered by previous nailings.

Circle No. 4873
on Reply Form for Details

Folder on Valves

A four-page folder covering conveying and rotary valves specifically designed for pneumatic systems is now available from Systems Engineering & Manufacturing Co. Included in the folder are photographs of the valves, drawings of standard models, operational and installational information, plus data on capacity and dimension. The manufacturer states that the valves are particularly adaptable to the food processing, baking and chemical industries.

Circle No. 4874
on Reply Form for Details

Bulk Weighing Systems

Toledo Scale Division of Toledo Scale Corp. is offering a four-page brochure describing its bulk weighing systems and their advantages. Outlined and illustrated are: Net weight loading of carriers; immediate printed weight records; pre-set draft counters enabling operators to predetermine the number of drafts processed in sequence; net weight totals and sub-

totals available at the touch of a button on the remote control consoles, and positive "fail safe" electrical circuitry to assure consistent performance.

Circle No. 4875
on Reply Form for Details

Pneumatic Unloading

A bulletin describing and illustrating how a portable "breather" is used during pneumatic loading or unloading of Airslide Cars is now available from the Fuller Co. The two-color bulletin describes design features, functions and advantages of the unit. Special materials of construction are also described. Illustrations include two photographs of the breather as well as line drawings showing typical installations on rail cars.

Circle No. 4876
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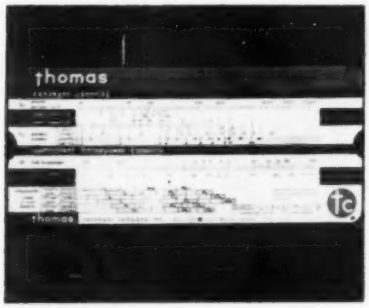
Engineers' Calculator

Thomas Conveyor Co., Inc., is offering to qualified engineers, without charge, its Thomas Screw Conveyor Calculator. The calculator is an easy



to read, five-window sliding computer to quickly determine conveyor capacity, component horsepower capacity, capacity conversion, material horsepower and friction horsepower.

Circle No. 4877
on Reply Form for Details

Moisture Testers

Plans for leasing or financing Steinlite moisture testers and other grain testing, grading and handling equip-

ment have been announced by Seedburo Equipment Co. Under the program, any order of $350 or more may be placed on a lease basis with terms of 12 to 36 months. All payments are tax deductible, states Seedburo, and leases may be renewed when expired for six percent of the initial cost per year. The financing plan, designed for purchases of $1,500 or more, provides for minimum down payment and monthly installments. The plans are designed to offer the user whatever equipment he needs without depleting his working capital. Complete information is available from Seedburo.

Circle No. 4878
on Reply Form for Details

Pneumatic Conveyor

National Air Vibrator Co. has introduced its Model NF-6-168 pneumatic conveyor feeder for moving bulk or granular material at capacities up to 30 tons an hour. The flow rate can be easily changed, it is stated, by adjusting air-pressure range from 20 to 30 p.s.i. The feeder is operated by a Naveo BH4 air vibrator which incorporates the company's patented one-piece design. It has the silent type vibrator piston as its only moving part. The new feeder uses no bearings or electrical control adaptors.

Circle No. 4879
on Reply Form for Details

Material Level Control

A heavy duty relay with 10 amp. rating is now an optional feature of the Flo-Level L-400 series of rotary paddle material level controls made by the electronics control division of Flo-Tronics, Inc. The transistorized L-400 is available in either weather- and dust-tight or explosion-proof enclosures. The company reports that the unit is compact and easily mounted on bin, hopper or tank walls at the desired control points by use of a 1¼ in. pipe coupling. The flexible scaled shaft extends into the interior. The sensing paddle rotates continuously when not surrounded by material.

Circle No. 4880
on Reply Form for Details

Dust Separator

The Day Co.'s "HV" centrifugal dust separator is described in a bulletin now released. The 12 page illustrated brochure includes performance data, selection and dimension charts, and installation photos with descriptions for the "HV" cyclonic separator and "HV" supports. The company states that the "HV" is a rugged, high efficiency unit made in

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furnished tailored for any collection requirements. The separator handles fibrous, granular, abrasive and fine or coarse dusts and can be used on pressure or vacuum.

Circle No. 4881
on Reply Form for Details

Service Program

S. Howes Co. is now offering a service to owners of Eureka grain cleaners to provide preventive maintenance and to enable processors to meet purity standards set up by U.S. Food and Drug Administration. Under the program, a factory serviceman visits each customer on a prearranged date and performs a complete check-up and adjustment procedure. In addition, S. Howes service personnel instruct all key employees in the customer's plant on proper operation and maintenance of Eureka grain cleaners. S. Howes dealers are being advised well in advance when this service is available in their respective areas.

Circle No. 4882
on Reply Form for Details

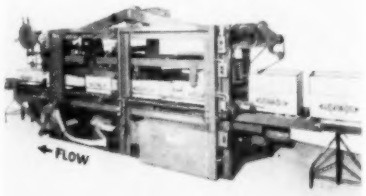
Sleeve Bearings

Link-Belt Co. announces availability of its self-aligning, self-lubricating Flex-Block sleeve bearings in flanged and pillow block types. The bearings are designed to operate in temperatures up to 1,000° F. in corrosive and contaminating conditions. The company states that the bearings are also for use in inaccessible locations where lubrication and maintenance are problems, where noise control is important, and at slow speeds. The company states that Flex-Blocks have been applied successfully in such areas of industry as commercial bakery ovens and mills. A folder is available, No. 2823, "Flex-Block Sleeve Bearings."

Circle No. 4883
on Reply Form for Details

Case-Tape-Sealer

General Corrugated Machinery Co. now has in operation at the plant of a West Coast macaroni manufacturing firm its "General" Case-Tape-Sealer. The machine automatically adjusts to seal cases of varying widths and heights. Cases are closed and sealed with tape on the top and bottom at the same time. As now operating, the machine seals cases containing cellophane bags of various macaroni prod-



ucts, among other items. As each group of 2 to 12 packed cases of a specific size arrives at the inspection station, cases are inspected for quality of product and pack. The inspector then presses a remote control switch to start the taping machine through its self-adjusting cycle for the new size case. Inspected cases then are transported by belt conveyor to the case sealer taper for sealing. As the last case of one size clears the machine, the inspector simply flips the remote control switch and the machine automatically resets for the next new size. «

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Freeman's Folly with the Bakers Underlines His Unfitness for Power Under Omnibus Bill

Success Claim for Feed Grain Law Discounted by Theory Motivating Mad Rush to Extend Legislation into 1962

By F. C. BISSON
Chicago Correspondent

THE NORTHWESTERN MILLER, in its issue dated May 15, published a piece bearing the writer's byline in which some rather free wheeling, but nonetheless factual observations, were made about the Agricultural Act of 1961 . . . better known as the Omnibus Farm Bill because of its catch-all character.

This piece of legislation was allotted emergency status by President Kennedy himself and he preceded the actual introduction of the twin bills (S 1643 and HR 6400) with a 6,500 word letter urging immediate action by Congress. Positively no delay was to be brooked. It was to get the green light and be hustled through the law making body with the same high speed and the same disregard for the usual amenities that might be expected in a shotgun wedding. Thuswise some degree of legitimacy might be accorded the expected issue.

F. C. Bisson

In addition to underlining the melange of badly outmoded and long since completely discredited solutions to the farm problem the Omnibus measure really is, the writer tried to show it up as nothing more than a blatant attempt on the part of the secretary of agriculture to take over the country's agriculture on a "cradle-to-the-grave" basis, with the secretary given absolute power of life and death over the agrarian economy. And what would be even more dangerous would be placing that power in the hands of a man whose background of knowledge of marketing procedures carries little or nothing to warrant the lodging of such tremendous responsibilities.

With a certain amount of pardonable pride, your commentator can reveal that the story in question appeared to strike a responsive chord among many of THE MILLER's readers. And it even received notice from a Washington official of the U.S. Department of Agriculture.

The official was reported as describing the story as "vicious." I'm just naive enough to know that he was not using the word in terms of being "spiteful" or "venomous" but rather in its more remote connotation of "aggressive." As a former employee of USDA (1926-40), the compliment is appreciated even though I was of a lowly civil service status and not a political employee.

To return to the bill itself, despite the built-in aura of urgency created by the President's call for immediate action, it has been reposing more or less on ice for the past 60 days. Refrigerated or not, bringing it out temporarily for discussion before both the Senate and House Agriculture Committees, seems to have done no good to the bill. The opposition is clear cut, expressed by witnesses who know what they are talking about.

The bill's most ardent and voluble booster, Orville L. Freeman, secretary of agriculture, has worn a path up Capitol Hill with briefcases full of favorable arguments and tailor-made statistics. These have been geared to prove that Prof. Willard Cochrane's farm elixir is the miracle economic drug of the age, guaranteed by himself and a group of fellow pedants, to raise the price of grain to the farmer and, at the same time, lower the cost of the finished product to the consumer.

One of the best arguments against this defeated Minnesota politician's addiction to the belief that he should be given a blank check by Congress is his own words of totally unwarranted exorcisation of the bakers of America at the recent dedication ceremonies at Kansas State University. It showed Mr. Freeman as the master political opportunist of his time. It was a typical warmed-over campaign speech based on a premise that is 100% false to start with. He succeeded in exposing his lack of depth and sincerity.

If Mr. Freeman was ignorant of the facts, that would be bad enough. But if he spoke as he did maliciously, then it is even worse. But whichever it is, it constitutes indelible proof that he is the last person in the world to be given the power that his group has built into the Omnibus bill.

Every miller and every baker as well as every grain dealer and other handler of agricultural products should write their congressmen, enclosing a copy of the editorial which appeared on pages 7 and 8 of THE MILLER dated June 12. They should move speedily to take advantage of the opportunity presented them by Mr. Freeman when he laid himself over a barrel of his own making. There is an infinite amount of justice in seeing someone "hoist by his own petard" something which often happens when one's tongue and brain fail to mesh at all times.

All of this brings up another very closely related subject—the so-called emergency Feed Grain Law, passed early this spring. Washington advices have said, with nothing more to go on than Mr. Freeman's own claims, that it is a success. The House Agriculture sub-committee has given its approval to an extension for the 1962 corn and other feed grain crops. No one can explain the mad rush to get this measure on the statute books. There is as much emergency about it as for a just-engaged young lady picking out a name for her first born—unless, of course, she has some inside knowledge that no one else possesses.

But, come to think of it, it could well be that in Mr. Freeman's case he already has inside knowledge that fails to confirm the reported official approximate 26% reduction in corn and grain sorghum acreages for 1961 as compared with the 1959-60 planted acreages. There has been talk about a certain amount of defection from the program on the part of the corn growers after they had reputedly signed up for the minimum 20% acreage reduction this year.

The USDA people have already given a name to just such a situation—they call it "slippage." How many growers, do you suppose, signed up just as a favor to their county committee, with no intention of accepting payments, either in cash or in kind? From Washington, they were swinging the bullwhip on the politically appointed

Freeman's Folly (continued)

state committees, who in turn were doing a Simon Legree on the county committees, and thence on to the township committees. All were doing a job of brainwashing on the growers with exaggerated pictures of "how they must not let Orville down."

Perhaps it may occur to the reader that the secretary of agriculture, master politician that he is, recognizes that if he delays too long in getting congressional approval for another year of a program yet to be proven practical, he might not get it later.

In addition to such defection—Washingtonese prefers the more delicate slippages—what of the growers on the other 42% of the corn acreage who wanted no part of the program? That percentage represents just over 35 million acres. The owners must have had some good reason for turning thumbs down on the Freeman scheme. They are not going to sit idly by while their compliant neighbors dip into the gravy barrel. More closely planted rows, freer usage of fertilizers and a moderate increase in acreage on their part, and 90% of whatever effectiveness the group of compliant growers possessed will be sunk without a trace.

Could this situation be behind Mr. Freeman's mad rush to get congressional consent to extension for 1962?

Blueprints are already coming off the drawing board. In the light of what they have in mind, it might be better to describe it as a "drawing and quartering board" for the reason that this is just what is going to happen if this group of economic crystal gazers gets congressional authority to activate its programs.

As a preliminary piece of propaganda, USDA's Economic Research Service has already prepared and distributed an imposing 35 page brochure entitled: "How Wheat Farmers Would Adjust to Different Programs." There appear to be five different programs in mind, lettered A through E.

A A sort of status quo deal, much the same as in 1960, with an average price of $1.80 bu. for wheat.

B Calls for small acreage allotments and an average price of $2.04 bu.

C Would permit larger wheat allotments and a price of $1.56 bu.

D Provides for food and export allotments, with a support price of $1.56 bu., plus a payment of 80¢ bu. for putting 20% of the farmer's base acreage into the land reserve.

E Would have a support level of $2.16 bu.

As for so-called marketing quotas, no provision appears to be made for them under Programs A, B or C. Under D, the marketing quota would be ⅔ of the normal yield and on Program E, it would be 5/12 of the normal yield on the 1960 acreage.

Presumably, there would be marketing quota referenda under Programs D and E, although no mention is made of that phase in the brochure despite definite provision for them in both the Ellender and Cooley bills which collectively make up the Omnibus bill. «

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Congressional Leaders Show Opposition to Farm Bill

Efforts of the secretary of agriculture, Orville L. Freeman, to obtain legislative power to implement new farm programs, including those for wheat and feed grains, have run into opposition from both sides of the political fence.

Meetings by Sec. Freeman with leading Democrats and Republicans have brought notice that the central feature of his program—which would leave Congress only veto authority over his actions—will not receive approval. For all practical purposes, the sessions have killed the secretary's hope of gaining power he seeks to draft and implement new farm programs.

Reaction to the secretary's program, and opposition to its central feature, came from House Speaker Sam Rayburn and Chairman Harold D. Cooley of the House Agriculture Committee. The secretary was told that the only manner in which he can preserve the Omnibus Farm Bill is to eliminate the controversial program-writing section almost totally.

The secretary had stated earlier that action on the wheat portion of his bill, being considered by a House subcommittee would, if enacted, enable him to raise wheat price supports on next year's crop to $2 bu. The level of support for this year is $1.79 bu.

Features of the wheat plan sanctioned by the subcommittee include a mandatory 10% cut in wheat acreage allotments below this year's 55-million-acre level; payments to farmers for making such reductions; a reduction in the current 15-acre exemption; an optional and additional land retirement program; a new provision forbidding western wheat farmers in the summer fallow area from planting feed grains on fallowed land, and an increase in penalty rates for over-production. «

GMI Flour Brands to Be Produced, Distributed By Philippines Firm

Flour brands of General Mills, Inc., will be produced and distributed in the Philippines soon, the result of an agreement between that firm and Liberty Flour Mills, Inc., of Mandaluyong and Manila.

Negotiations which were started a few months ago culminated recently in San Francisco with the signing of an agreement by Augusto Kalaw, vice president and legal counsel for Liberty, and Burton W. Roberts, vice president of General Mills. Mr. Roberts also is general manager of the firm's Sperry (western) Operations.

General Mills' participation in the operation will be administered by H. A. Robertson, director of export for Sperry, cooperating with Basilio King, vice president in charge of sales and procurement for Liberty.

Atkins-Kroll Co., Ltd., Manila, will represent the U.S. firm in the Philippines, now designated by Liberty and General Mills as their exclusive agent for sales and merchandising of two well-established, widely-advertised brands of flour. One is "Betty Crocker" Gold Medal "Kitchen-tested" all-purpose family flour. The second is Softasilk cake flour used in the Philippines, as well as other export markets and the U.S.

Liberty will take full advantage of General Mills' experience in producing the two brands, plus other brands of bakers' flour, including Gold Medal, a 100% high protein spring wheat flour, for making pan de sals and other types of bread products. These brands of flour for bakers will be sold through agents of Liberty.

Grain buyers of General Mills will assist with the purchase of selected wheat types. Certain laboratory and milling techniques, established specifications and other technical assistance also are part of the mutual terms of agreement.

Liberty will produce and package Gold Medal "Kitchen-tested" family flour in the regular two, five and 10 pound sizes. «

AUGUSTO KALAW, vice president and legal counsel for Liberty Flour Mills, Inc., at the left, is pictured with Burton W. Roberts, vice president of General Mills, Inc., at the time an agreement was signed by the two companies to produce and distribute General Mills' flour brands in the Philippines.

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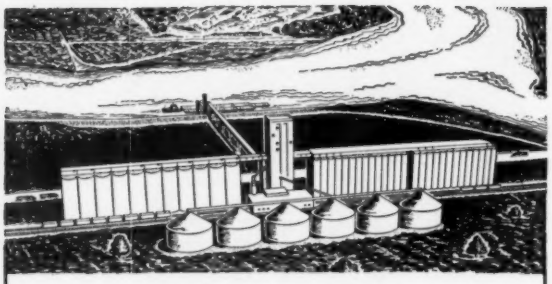

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CENTENARY OBSERVANCE

Buhler Celebrates 100 Years Of Service with Festivities, 'Open House' for Visitors

BUHLER BROS., the mill engineering firm of Uzwil, Switzerland, celebrated its 100th anniversary early in June, joined by public officials, hundreds of its customers and guests from countries 'round the world where it has made staunch friends during a century of progress.

The two-day observance—done in the grand Swiss manner of hospitality—was liberally punctuated by sightseeing tours of Buhler installations and prominent, historic places within the country.

During the celebration nearly 600 people from 30 countries were guests of the Swiss firm. On the initial day they were given a choice of several tours, including a flour mill, grain elevators, a feed mill and a macaroni plant, plus installations of Buhler equipment in other areas of industry where it serves.

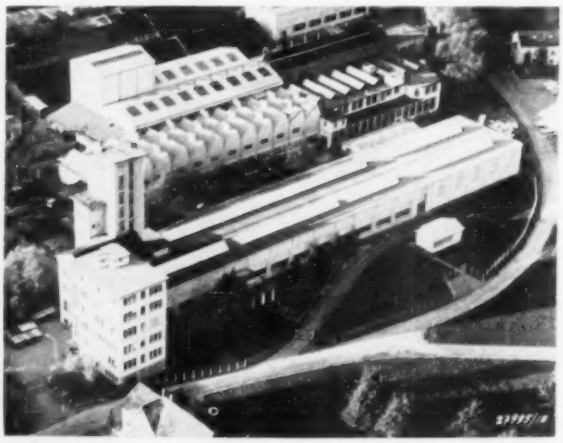
Visitors Tour Facilities

One of the highlights was an inspection of the Buhler works at Winkeln and Uzwil, with the firm's distinctive research center drawing high attention.

Host throughout the celebration was Dr. Rene Buhler, co-owner of the firm, who received plaudits at an official banquet during the festivities. Dr. Buhler expressed heartfelt appreciation to those present for their keen interest in his company, and in turn reminded them that they—the customers—"are the real pillars on which a firm can build." On behalf of Buhler, he thanked them for their friendship and confidence.

Prominent among the lengthy roster of visitors who recognized Buhler for its 100 years of service was Charles H. Bell, president of General Mills, Inc. Mr. Bell paid high tribute to Buhler for its role among leading mill builders of the world. He cited Buhler for its research and development work of the past few years, which has contributed to the advancement of the milling industry and his own company.

Adolph Buhler, brother of Dr. Buhler and with him



THIS AERIAL VIEW shows the Buhler research center in Switzerland, one of the key places of interest during the 100th anniversary observance.

owner of the organization, capped the dinner with a final toast to the customers and a word of appreciation for their attendance.

Guests from the U.S. also included John A. Hendrickson, vice president of the International Milling Co., Minneapolis, and James E. Skidmore, president of J. Allen Smith & Co., Knoxville, Tenn. C. R. Moor, president of the Buhler Corp., Minneapolis, also was in attendance. The three U.S. visitors were accompanied by their wives.

Buhler personnel, 2,600 strong, plus 1,400 of their wives, recognized the occasion with their own celebration. It was heralded with an impressive fanfare from pinnacles of workshop buildings. The anniversary was augmented by attendance of retired employees, their spouses, widows of former workers and delegates from the world-wide affiliated firms of Buhler. Along with Buhler personnel, 170 guests joined the big "family celebration."

The first day's observance was climaxed by a dinner for more than 4,500. Dr. Buhler took the opportunity to thank those who contributed in making the organization healthy and strong.

Started as a small foundry and mechanical workshop, Buhler later began casting and manufacturing rolls for the flour milling industry, then complete roller mills. It erected its first complete milling plants in 1897, big mills from 1905, and in 1944 introduced its pneumatic system.

Today, the organization comprises about 3,300 persons, of whom more than 600 reside outside Switzerland. The company has a network of 11 allied firms and 51 representatives maintaining branch offices in large cities around the world. «

High Drying Temperatures May Impair Wheat's Baking Quality

High artificial drying temperatures may impair the baking quality of wheat without affecting external appearance of the grain, according to reports from the U.S. Department of Agriculture.

Cooperative research by USDA's Agricultural Research Service and the Kansas Agricultural Experiment Station indicates high moisture wheat is damaged for baking at lower drying temperatures than wheat with a relatively low moisture content.

In wheat of 27% moisture, intended for bread-making, ARS research shows bread loaf volume may be damaged at drying temperatures above 160° F. For grain with a moisture content of 19.4%, 180° F. is about the maximum drying temperature that can be used without impairing loaf volume. At 16.5% moisture, grain drying temperatures should not exceed 188° F.

Karl F. Finney and associates at the USDA Hard Winter Wheat Quality Laboratory, Manhattan, Kansas, made their observations with samples of incompletely ripened Pawnee hard red winter wheat dried in a laboratory convection oven at temperatures ranging from 90 to 360° F.

These researchers found that the quality of bread produced was satisfactory in loaves baked from 27 and 19.4%-moisture wheat dried at up to 160° F. Bread quality, but not loaf volume, was satisfactory when 16.5%-moisture wheat was dried at up to 200° F.

Mr. Finney found wheat bushel-weight also is consistently decreased by drying temperatures of 120° F. and higher, depending upon initial wheat bushel weight. High temperatures lowered kernel density but did not cause shriveling of kernels. «

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Allied Mills, Inc.	52¾	36½	45½	45¾
Allis-Chalmers	29½	23⅜	26¾	25⅞
American Bakeries Co.	43½	36	40⅛	40⅛
American Cyanamid	50	42⅝	46	45⅝
Archer-Daniels-Midland Co.	49	33½	49	38
Borden	68¾	55⅜	62⅛	60⅛
Continental Baking Co.	58	44⅝	54½	53½
Pfd. $5.50	111	103	105½	103¾
Corn Products Refining Co.	59⅞	45⅝	53⅜	51⅜
Cream of Wheat	48⅜	35¼	46¾	45⅝
Crown Zellerbach Corp.	60¼	52⅜	59¼	56¼
Dow Chemical	83⅜	70	80½	79⅞
General Baking Co.	10¼	7½	7½	7½
Pfd. $8	140	94⅛	97	94⅛
General Foods Corp.	83	68⅝	81½	80½
General Mills, Inc.	37	31	33⅜	33⅜
Merck & Co.	90⅜	77⅜	81	82¼
Pfd. $3.50	81	75	....	80½
Monsanto Chemical Co.	53⅞	44⅛	53	52¼
National Biscuit Co.	83¾	70½	78½	77¾
Pfizer, Chas.	42⅞	30⅝	41¾	40⅜
Pillsbury Co.	54½	44⅛	53	52¾
Procter & Gamble	93	73	79⅜	81½
Quaker Oats Co.	74¾	57½	73	72
Pfd. $6	142½	131	....	137
St. Regis Paper Co.	40½	33	....	36¼
Standard Brands, Inc.	65½	52¼	62	62
Pfd. $3.50	78	72¼	....	74¼
Sterling Drug	96	67	89	85¼
Sunshine Biscuits, Inc.	116¾	101½	105	105½
United Biscuit of America	45½	37½	39⅜	37½
Ward Baking Co.	13⅞	10⅜	12⅞	12½
West Virginia Pulp & Paper Co.	42¾	35	37½	35

Stocks not traded:

	Bid	Asked
Allis-Chalmers, $3.25 Pfd.	104	112
Corn Products Refining Co., $7 Pfd.	89	91
Crown Zellerbach Corp., $4.20 Pfd.	94	94½
General Mills, Inc., 5% Pfd.	107¼	107¾
National Biscuit Co., $7 Pfd.	154	155½
Pillsbury Co., $4 Pfd.	95	96
St. Regis Paper Co., $4.40 Pfd.	97	100
Ward Baking Co., $5.50 Pfd.	82⅛	84
West Va. Pulp & Paper Co., Pfd.	95	96½

THE AMERICAN STOCK EXCHANGE

Quotations on baking, milling and allied stocks listed on the American Stock Exchange:

	1961 High	1961 Low	June 12, 1961 Close	June 19, 1961 Close
Burry Biscuit Co.	35½	19¼	26⅞	25¾
Horn & Hardart Corp. of N. Y.	53	36¼	42¼	40
Pfd. $7	189¾	145	159	157
Wagner Baking Co.	10¾	4	6⅜	6

Stocks not traded:

	Bid	Asked
Horn & Hardart Corp. of N. Y., $5 Pfd.	100	102½
Wagner Baking Co., Pfd.	73¼	77

CANADIAN STOCKS

	1961 High	1961 Low	June 9, 1961 Close	June 16, 1961 Close
Canada Bread	4.50	3.75	4.50	*5.75
Pfd. B	52½	49⅛	52½	50
Can. Bakeries	8⅛	5	5½	5
Can. Food Prod.	7¾	4½	7½	7⅜
1st Pfd.	56	44⅛	54½	54⅜
2nd Pfd.	55	37½	51½	53
Catelli Foor'	39⅛	38	38	38
Cons. Bakeries	11⅜	7⅛	10¾	10½
Dover Ind.	12¼	9¾	10¾	10¾
Pfd.	10	9½	10	9¾
Federal Grain	69½	47	61½	60½
Pfd.	29⅛	27⅜	29	29
Gen. Bakeries	10¼	7¼	9¾	9⅝
Maple Leaf Mills	16⅝	12¼	16	16¼
Pfd.	101½	100	*102⅛	*102
McCabe Grain	34	32¼	33½	32½
Ogilvie Flour	53½	47	52	53
Pfd.	140	137	138	138
United Grain, A	15⅝	15½	15⅝	15¾
Weston, G., A	20¼	18	19	18½
B	22¾	20⅞	21½	20¼
Pfd. 4½%	96¼	90	94¾	95¼

*Less than board lot.

Just Punch and Pour

EASY SPOT FUMIGATION

Mill — Bakery — Brewery

DAWSON 73 Spot Fumigant is fast acting and so effective that 1½ oz. in this 2-inch high can will give better insect control than a pint to a quart of commonly used spot fumigants. Safer to handle because premeasured and prepackaged. No hazardous job of transferring fumigant from big containers to bottles. No bottles to break. Easy to distribute. 50 shot cans go in one knapsack. **DAWSON 73** vapors penetrate deep stock and remain effective for as much as a week. Many users report essentially continuous freedom from infestation in their equipment from complete applications at three week intervals. Better results are cheaper with **DAWSON 73. (U.S. Patent 2,606,857.)**

DAWSON LOW-DOSAGE FUMIGANTS

Detailed directions and can opener packed in every case of 48 cans. Ask for complete information and prices.

FERGUSON FUMIGANTS
INCORPORATED
P. O. Box 5868
Ferguson 35, Mo. Phone PErshing 1-0414

LEADING FLOUR IMPORTERS ABROAD

Many of the firms appearing in this list are available to handle the importation of other products besides flour. Some specialize additionally in cereals, some in bakers' sundries and others in feed grains and ingredients. Most of them have connections in adjacent countries and are equipped to handle both import and export business on an extensive basis. For a list of recommended firms dealing in specific commodities or in specific countries write to THE Northwestern MILLER, P.O. Box No. 67, Minneapolis 40, Minn., U.S.A.

ENGLAND

H. Cohen & Co., Ltd.
Hambro House, Vintners' Place
LONDON, E.C. 4
Cable Address: Bortrite, London

Mardorf, Peach & Co., Ltd.
52, Mark Lane LONDON, E.C. 3
Cable Address: "Dorfeach," London

Pillman & Phillips, Ltd.
26, Corn Exchange Chambers
Seething Lane LONDON, E.C. 3
And at Bristol and Liverpool

Vaughan Thomas & Co., Ltd.
The Corn Exchange Building
52/57, Mark Lane LONDON, E.C. 3
Cable Address: "Avaumas," London

GERMANY

Einfuhrhandel Mannheim
Hans Werle
MANNHEIM/GERMANY, E2., 1-3
Cable Address: "Einfuhr" Telex 0463270

DENMARK

Brodr. Justesen
COPENHAGEN
Cable Address: "Justesens," Copenhagen

SCOTLAND

Farquhar Brothers
50 Wellington Street GLASGOW,C.2
Cable Address: "Glencairn," Glasgow

McConnell & Reid, Ltd.
19 Waterloo St. GLASGOW
Cable Address: "Marvel," Glasgow

D. T. Russell & Baird, Ltd.
106 Hope Street GLASGOW,C.2

HOLLAND

Bulsing & Heslenfeld N. V.
Established 1885
Damrak 20-22
AMSTERDAM (C)
Cable Address: "Heslenfeld," Amsterdam

STOLP & CO., LTD.
47-48 Damrak AMSTERDAM
Cable Address: "Cleo"

Gebrs. Van Den Bergh's N. V.
ROTTERDAM
Cables: Locomotion Rotterdam

N. V.
Algemeene Handel-en Industrie Maatschappy
"MEELUNIE"
Heerengracht 209 AMSTERDAM

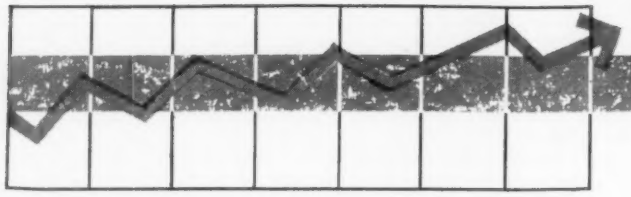
N. V. Agentuur & Commissiehandel
v/h P. C. Vis & Co.
AMSTERDAM
Cable Address: "Visco"

Luchsinger, Meurs & Co.'s
Handelsmaatschappij, N.V.
AMSTERDAM—(C)
Cable Address: "Matluch"

M. WITSENBURG JR. N. V.
Postbox 945 AMSTERDAM C.
Cable Address: "Witburg"

GRIPPELING & VERKLEY N. V.
Flour Specialists Since 1889
AMSTERDAM
Cable Address: Bygrip, Amsterdam

Millers in 44 Overseas Nations Read Every Issue of the Miller



FLOUR PRODUCTION

A Statistical Service Provided Continuously for Readers of The Northwestern Miller for More than Half a Century.

WEEKLY FLOUR PRODUCTION, IN SACKS (CWT.)

Flour production in principal manufacturing areas by mills reporting currently to THE Northwestern MILLER with relationship of production to capacity and to the total estimated output of all mills in the U.S. expressed in percentages:

	June 4-11, 1961	*Previous week	June 5-12, 1960	June 6-13, 1959	June 7-14, 1958
Northwest	735,518	661,694	723,268	726,905	713,014
Southwest	1,319,418	1,261,354	1,340,514	1,373,730	1,253,757
Buffalo	512,106	450,777	543,739	549,496	561,273
Central and Southeast	583,701	421,056	547,086	512,635	416,679
Pacific Coast	379,703	341,056	472,560	403,986	363,612
Totals	3,530,446	3,135,937	4,628,067	3,566,752	3,308,335
Percentage of total U.S. output	74.5	74.5	75	75	75
Estimated total U.S. production	4,738,854	4,209,311			
Accumulated total this month	6,422,578	1,683,724			

*Revised.

	—Percentage of capacity operated in 5-day week—					Crop year flour production ——July 1 to——	
	June 4-11, 1961	Prev. week	June 5-12, 1960	June 6-13, 1959	June 7-14, 1958	June 11, 1961	June 12, 1960
Northwest	99	89	99	100	107	36,576,995	35,313,147
Southwest	95	91	101	106	95	72,618,094	71,583,386
Buffalo	101	89	104	111	115	25,290,508	25,427,142
Central and S. E.	91	66	84	80	70	30,206,402	30,237,888
Pacific Coast	81	72	101	87	113	21,295,244	22,332,417
Totals	94	84	98	99	99	185,987,243	184,893,980

NORTHWEST

Minneapolis

	5-day week capacity	Flour output	% capacity
June 4-11	185,100	179,573	97
Previous week	185,100	*†169,783	92
Year ago	194,500	191,675	99
Two years ago	231,000	217,913	94
Five-year average			95
Ten-year average			95

*Revised. †Four-day week.

Principal interior mills in Minnesota, including Duluth, St. Paul, North Dakota, Montana and Iowa:

	5-day week capacity	Flour output	% capacity
June 4-11	558,870	555,945	99
Previous week	558,870	*†491,911	88
Year ago	534,250	531,593	100
Two years ago	494,500	508,992	103
Five-year average			104
Ten-year average			95

*Revised. †Four-day week.

CENTRAL AND SOUTHEASTERN

Mills in Illinois, Ohio, Michigan, Wisconsin, Indiana, Kentucky, North Carolina, Tennessee, Virginia, Georgia and eastern Missouri:

	5-day week capacity	Flour output	% capacity
June 4-11	612,700	583,701	91
Previous week	612,700	*†421,056	66
Year ago	651,450	547,986	84
Two years ago	643,750	512,635	80
Five-year average			94
Ten-year average			87

*Revised. †Four-day week.

SOUTHWEST

Kansas City

	5-day week capacity	Flour output	% capacity
June 4-11	297,750	253,430	85
Previous week	297,750	*†221,483	74
Year ago	254,250	242,594	95
Two years ago	221,750	251,064	113
Five-year average			106
Ten-year average			99

*Revised. †Four-day week.

Representative Mills, Outside of Kansas City (Including Wichita and Salina)

	5-day week capacity	Flour output	% capacity
June 4-11	1,084,395	1,065,988	98
Previous week	1,084,395	*†1,039,871	96
Year ago	1,067,250	1,097,920	103
Two years ago	1,068,800	1,122,666	105
Five-year average			108
Ten-year average			99

*Revised. †Four-day week.

BUFFALO

	5-day week capacity	Flour output	% capacity
June 4-11	505,500	512,106	101
Previous week	505,500	*†450,777	89
Year ago	522,000	543,739	104
Two years ago	494,500	549,496	111
Five-year average			108
Ten-year average			104

*Revised. †Four-day week.

PACIFIC COAST

Principal Mills on the Pacific Coast

California, Oregon and Washington Mills

	5-day week capacity	Flour output	% capacity
June 4-11	471,200	379,703	81
Previous week	471,200	*†341,056	72
Year ago	466,500	472,560	101
Two years ago	466,500	403,986	87
Five-year average			96
Ten-year average			89

*Revised. †Four-day week.

DURUM PRODUCTS OUTPUT

Durum products output of mills reporting to THE Northwestern MILLER, in sacks, based on five-day week:

	5-day week capacity	Wkly. production	% of capacity
June 4-11	167,250	204,087	122
Previous week	167,250	*†161,879	97
Year ago	156,500	163,593	105

	Crop year production
July 1, 1960-June 11, 1961	9,186,460
July 1, 1959-June 12, 1960	8,919,489

*Revised. †Four-day week.

Canadian Price Adjustments

Price adjustment figures announced by the Canadian Wheat Board and in effect June 22 were as follows: To U.K. and other European destinations via Canadian and U.S. Atlantic ports, also via St. Lawrence, Churchill, Canadian and U.S. Pacific ports, 4 3/16¢ bu.; to other countries, excluding U.S. and territories, from Canadian and U.S. Atlantic ports, 15 1/16¢ bu.; from St. Lawrence, Churchill, Canadian and U.S. Pacific ports, 14 3/16¢ bu. The above adjustment prices apply to wheat milled in Western Canada. For wheat milled in the Bayport area the rate is 1/2¢ bu. less, while for wheat milled in the Humberstone area and in the Toronto area the rate is 1¢ bu. less. Wheat milled in the Montreal area is 2¢ bu. less.

Production for June 4-11 is at the left; for June 11-18 appears here

WEEKLY FLOUR PRODUCTION, IN SACKS (CWT.)

Flour production in principal manufacturing areas by mills reporting currently to THE Northwestern MILLER with relationship of production to capacity and to the total estimated output of all mills in the U.S. expressed in percentages:

	June 11-18, 1961	*Previous week	June 12-19, 1960	June 13-20, 1959	June 14-21, 1958
Northwest	758,564	735,518	701,358	596,034	452,116
Southwest	1,393,625	1,319,418	1,380,209	1,370,325	1,255,818
Buffalo	550,156	512,106	458,718	469,578	449,021
Central and Southeast	607,388	583,701	619,830	434,334	335,788
Pacific Coast	373,258	379,703	470,432	364,828	277,322
Totals	3,682,991	3,530,446	3,630,547	3,235,099	2,770,065
Percentage of total U.S. output..	74.5	74.5	75	75	75
Estimated total U.S. production ..	4,943,612	4,738,854			
Accumulated total this month ...	11,366,190	6,422,578			

*Revised.

	—Percentage of capacity operated in 5-day week—					Crop year flour production ——July 1 to——	
	June 11-18, 1961	Prev. week	June 12-19, 1960	June 13-20, 1959	June 14-21, 1958	June 18, 1961	June 19, 1960
Northwest	102	99	96	82	66	37,335,559	36,014,505
Southwest	101	95	104	106	96	74,011,719	72,963,595
Buffalo	109	101	88	95	100	25,840,664	25,885,860
Central and S. E...	95	91	95	67	59	30,813,790	30,857,718
Pacific Coast	79	81	101	78	88	21,668,502	22,802 849
Totals	98	94	98	89	82	189,670,234	188,524,527

NORTHWEST

Minneapolis

	5-day week capacity	Flour output	% capacity
June 11-18	185,100	218,185	118
Previous week	185,100	179,573	97
Year ago	194,500	174,587	90
Two years ago	231,000	152,952	66
Five-year average			95
Ten-year average			95

Principal interior mills in Minnesota, including Duluth, St. Paul, North Dakota, Montana and Iowa:

	5-day week capacity	Flour output	% capacity
June 11-18	558,870	540,379	97
Previous week	558,870	555,945	99
Year ago	534,250	526,771	99
Two years ago	494,500	443,082	90
Five-year average			104
Ten-year average			95

CENTRAL AND SOUTHEASTERN

Mills in Illinois, Ohio, Michigan, Wisconsin, Indiana, Kentucky, North Carolina, Tennessee, Virginia, Georgia and eastern Missouri:

	5-day week capacity	Flour output	% capacity
June 11-18	612,700	607,388	95
Previous week	612,700	583,701	91
Year ago	651,450	619,830	95
Two years ago	643,750	434,334	67
Five-year average			94
Ten-year average			87

SOUTHWEST

Kansas City

	5-day week capacity	Flour output	% capacity
June 11-18	297,750	261,078	88
Previous week	297,750	253,430	85
Year ago	254,250	265,823	105
Two years ago	221,750	273,695	123
Five-year average			106
Ten-year average			99

Representative Mills, Outside of Kansas City (Including Wichita and Salina)

	5-day week capacity	Flour output	% capacity
June 11-18	1,084,395	1,132,547	104
Previous week	1,084,395	1,065,988	98
Year ago	1,067,250	1,114,386	104
Two years ago	1,068,800	1,096,630	103
Five-year average			108
Ten-year average			99

BUFFALO

	5-day week capacity	Flour output	% capacity
June 11-18	505,500	550,156	109
Previous week	505,500	512,106	101
Year ago	522,000	458,718	88
Two years ago	494,500	469,578	95
Five-year average			108
Ten-year average			104

Millfeed Production

Mills in the Northwest, Southwest and at Buffalo, representing 75% of the combined flour milling capacities of those areas, reported production of 50,993 tons of millfeed for June 11-18 compared with an output of 47,935 in the corresponding week a year ago. Production for the previous week of June 4-11 was 48,440, compared to 49,204 in the corresponding week of 1960.

PACIFIC COAST

Principal Mills on the Pacific Coast
California, Oregon and Washington Mills

	5-day week capacity	Flour output	% capacity
June 11-18	471,200	373,258	79
Previous week	471,200	379,703	81
Year ago	466,500	470,432	101
Two years ago	466,500	364,828	78
Five-year average			96
Ten-year average			89

DURUM PRODUCTS OUTPUT

Durum products output of mills reporting to THE Northwestern MILLER, in sacks, based on five-day week:

	5-day week capacity	Wkly. production	% of capacity
June 11-18	167,250	189,304	113
Previous week	167,250	204,087	122
Year ago	156,500	177,009	113

	Crop year production
July 1, 1960-June 18, 1961	9,375,734
July 1, 1959-June 19, 1960	9,096,498

FILLS THE BILL

For Timely, Useful Industry Information

The MILLER

Long Beach Grain Terminal Nearing Completion

THE WEST COAST'S newest grain terminal, a $2.5 million facility, will be completed July 1 at the Port of Long Beach, Cal., just a few days over 50 years from the date on which the port officially dedicated its first pier.

Constructed for the Port of Long Beach by Weitz-Hettelsater Engineers, Kansas City, the 810,000 bu. elevator will be able to load ships at a rate of 43,000 bu. an hour. It is expected to handle more than 10 million bushels annually. The terminal was designed by Marshall Barr & Associates, Seattle.

All exterior construction has been completed and equipment is being installed to meet the July 1 target date for completion.

The terminal stretches 216 ft. in height, higher than all other Long Beach buildings, and is one of the tallest structures in Southern California.

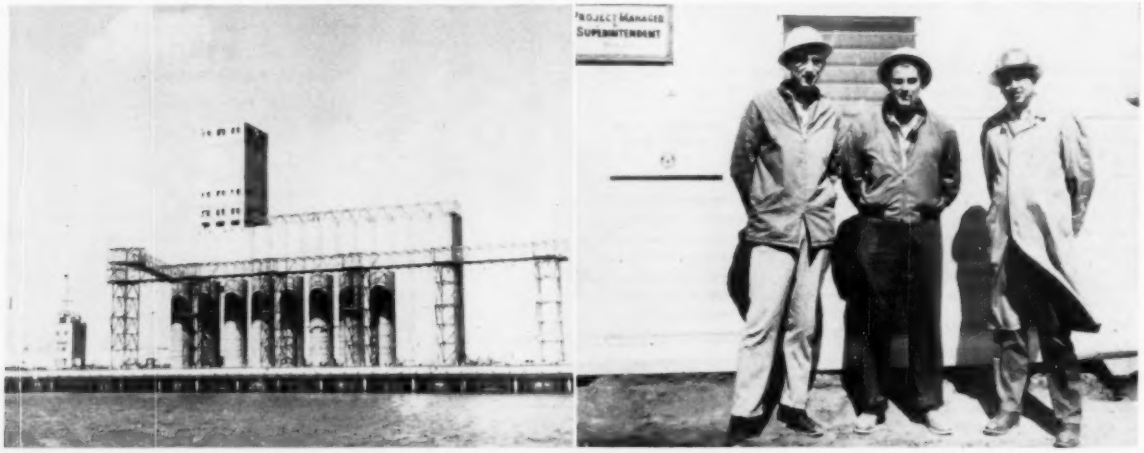
The elevator will serve California's 14 southern counties and the states of Nevada, Utah, Arizona, Wyoming, Colorado, New Mexico and several areas of Texas. Almost all the grain handled will be outbound in ships and a small amount will be received from vessels. In addition, there are facilities for loading cars and trucks.

Incoming grain will be received by truck dump or car unloader and elevated for storage in one of 33 tanks, star bins and three half-bins. Ships will be loaded with any—or all—of six loading spouts with a capacity of 43,000 bu. an hour. Pneumatic unloading facilities are also part of the operation.

Rail Trackage

More than 7,000 ft. of rail trackage and 320,000 sq. ft. of paved work space for truck parking comprise part of the terminal's total area. The elevator also includes anti-smog and dust collecting equipment, explosion-proof equipment and lighting, plus modern sampling, weighing and grading equipment.

Upon completion, the new grain terminal will be leased to Koppel Bulk Terminals for a 40-year period. «



THE PACIFIC COAST'S NEWEST grain terminal, above, is being pushed to completion at Long Beach, Cal. Supervision of each step of the construction has been done by the men at the right. They are, left to right: Joseph Flaspohler, Weitz-Hettelsater Engineers, project superintendent; Dave Sontag, resident inspector for the Port of Long Beach; and Paul Green, project manager for Weitz-Hettelsater.

MAPLE LEAF MILLS LIMITED

TORONTO, ONTARIO

SALES OFFICES *Montreal, Que.* *Winnipeg, Man.* *Vancouver, B.C.*

EXPORTERS OF CANADA'S FINEST QUALITY FLOURS AND OTHER GRAIN PRODUCTS, ALSO VEGETABLE OILS AND MEALS.

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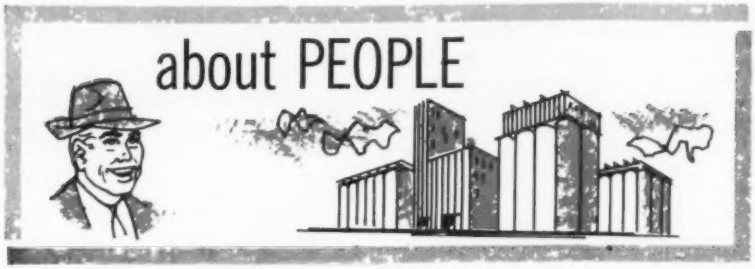


F. T. Heffelfinger, II, will head a newly formed producer services group within F. H. Peavey & Co., with the title of vice president and director of the operation, reports **Totton P. Heffelfinger,** president. The arrangement includes Peavey Feed Mills and Peavey-Occident Elevator divisions. **T. B. Schultz** will be vice president and general manager of Peavey-Occident Elevators and **William R. Renwick** vice president-general manager of the feed mills. The new group will organize and plan Peavey's country operations, with both divisions continuing their separate operations. Mr. Schultz takes over his new duties with retirement July 1 of **Truman J. Beggs,** vice president-general manager of Occident Elevators, and retirement of **L. J. Carlin,** vice president-general manager of Peavey Elevators. Mr. Carlin will serve in an advisory capacity following a leave of absence. Company directors have elected **F. B. Wells, III,** as vice president of grain marketing and **A. D. Beggs** as vice president, merchandise marketing of Peavey-Occident Elevators.

●

It's a move for **Warren P. Peterson,** marketing director of the Pillsbury Co.'s grocery products division. He's now appointed to a similar post with the firm's Tidy House division headquartered in Shenandoah, Iowa. Mr. Peterson will head marketing, sales and commercial research for the division. He has been with Pillsbury's marketing staff since 1947 and director for grocery products since 1956.

●

Rapid expansion and resulting complexity of personnel administration have brought some changes at the International Milling Co., reports **Wayne T. Kirk,** vice president. **Richard A. Diercks,** director of corporate personnel, moves to a new position as director of personnel research. He began with International in 1945 and

R. A. Diercks F. T. Madden

has directed personnel since 1952. Mr. Diercks' new duties cover responsibility for special studies and projects dealing with personnel policies and procedures. **Frank T. Madden,** plant superintendent at Buffalo, now becomes director of personnel, replacing Mr. Diercks in that capacity. He joined the company in 1947 as a job analyst in Minneapolis, moved to Buffalo as purchasing agent in 1951, advanced to assistant plant manager at Detroit in 1954, and to plant superintendent there in 1957. He has been plant superintendent at Buffalo since 1959. International's organization planning department, formerly separate, becomes a section of the personnel department.

●

H. B. Cantor has been elected a director of General Baking Co., New York. He is president of Carter Hotels Operating Corp., which owns and operates hotels in New York, Albany and Boston. Announcement of Mr. Cantor's appointment was made by **Russell J. Hug,** president of General Baking.

H. B. Cantor

●

William P. Matthews, a grain and feed veteran with 30 years of experience, has been elected president of the Los Angeles Grain Exchange. He served the past two years as director and vice president. Mr. Matthews presently is general manager of Coast Grain Co., Norwalk, Cal. **L. D. Elfelt, Jr.,** Cargill, Inc., has been elected vice president of the exchange; **Jack W. Flammer,** J. W. Flammer Co., treasurer, and **Gabriel Bass** as secretary-manager.

●

Two directors have been added to the board of Molinos de Puerto Rico, subsidiary of Nebraska Consolidated Mills Co. They are **Frank Becerra, Jr.,** San Juan, general manager of Molinos, and **Claude I. Carter,** Decatur, Ala., a vice president of Nebraska Consolidated and general manager of its subsidiary, Alabama Flour Mills. With **J. A. Mactier,** president of Molinos and Nebraska Consolidated, Mr. Becerra and Mr. Carter will form Molinos' executive committee. Also on the board of Molinos are: **R. S. Dickinson,** chairman; Mr. Mactier, **Mrs. Howard Platt, R. K. An-**

OGILVIE CANADA'S LEADING MILLERS

OGILVIE has provided milling leadership in Canada for more than a century and half.

Today, from its plants and offices all across Canada, Ogilvie produces and sells an astonishing variety of products.

MANUFACTURERS OF: *Ogilvie* All Purpose, Whole Wheat, Graham Flours—*Ogilvie* Cake Mixes, Hot Roll Mix, Pie Crust Mix—*Ogilvie* Instant & Quick Cooking Oats, Scotch Oatmeal, Wheat Hearts, Rolled Wheat, Vita-B Cereal, Cracked Wheat—*Ogilvie* Tonic Wheat Germ, Corn Meal, All Purpose Health Bran—*Ogilvie* Pot and Pearl Barley.

THE OGILVIE FLOUR MILLS CO. LIMITED

Mills at: Montreal • Fort William • Winnipeg • Medicine Hat • Edmonton *Cable Address:* OGILVIE MONTREAL—all codes used

derson and **Gilbert C. Swanson,** all of Omaha; **Harold Prince, L. E. Ray, E. W. Augustine** and **Judge E. G. Kroger,** all of Grand Island, Neb.; **Roy H. Parks,** Ithaca, N.Y., and **Edward M. Curtis, Sr.,** Beaumont, Texas.

●

Olin Mathieson Chemical Corp. has announced several appointments in its marketing and sales operations. **Candler W. Ellis** advances to a newly created position as manager of marketing services and **John B. Pritchett** to direct sales manager, both in film operations of the packaging division.

C. W. Ellis

J. B. Pritchett

Mr. Ellis was district sales manager for the New York-New England district. Mr. Pritchett was district sales manager in the Midwest, and now succeeds **E. L. Holloway,** who has been transferred to another position at West Monroe, La. **Robert D. Hillmann** becomes district sales manager for New York-New England; **Dale E. Chaney** moves to Mr. Hillmann's former post as Far Western district sales manager, and **C. T. McShane** to Midwestern district sales manager. **P. Rodney Quigg** has been appointed a Southern district film salesman, and **James W. Scotton** transfers from district sales, Far Western district, to film converter salesman, Midwestern states and part of the Eastern states.

●

Thomas M. Connolly, Cargill, Inc., will head the New York Produce Exchange during the coming year as president. **Donald V. MacDonald,** Francis I. duPont & Co., has been elected vice president. **Sidney Fashena,** partner in I. Usiskin & Co., has been reelected treasurer. Newly elected to the board of managers for two years were: **Milton Goldfogle,** broker; **Dirk D. Van Linschoten,** Louis Dreyfus Corp., and **Harold H. Vogel,** executive vice president, Continental Grain Co. Reelected to the board were: **Thomas F. Gowdy,** a partner of T. F. Gowdy Co.; **Walter C. Klein,** president, Bunge Corp., and **Otto F. Rehders,** H. Hentz & Co.

T. M. Connolly

●

James S. Cook, entomologist, who helped develop the recirculation method of fumigating grain, has been named vice president of H. T. McGill, Inc., Houston, Texas. Mr. Cook joined the company in 1955 as a fumigant specialist and sales representative. During the past several years he has developed a specialized fumigation consulting service for the grain and rice industries. A graduate of the University of Arkansas, Mr. Cook worked with the university's department of entomology six years, then joined the U.S. Department of Agriculture, developing recirculation methods of fumigation throughout the Southwest. Later, on the West Coast, he assisted with developing methods of controlling Khapra beetles.

James S. Cook

●

D. W. Tyler Co., Danville, Ill., representative for Simon-Carter Co. in Illinois and Indiana since early 1960, has appointed **Kenneth E. Bratney** as a partner in its firm. He formerly served as vice president of Reid-

Fort Garry Milling

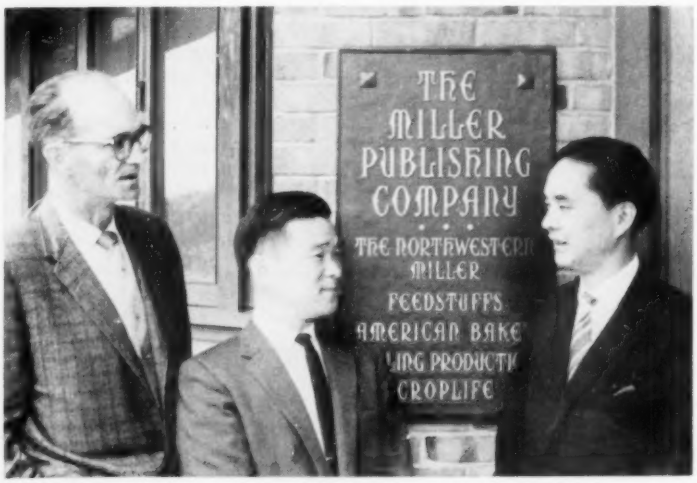
Company Limited

MILL AT SASKATOON, SASK., CANADA

SALES OFFICE
BOX 8505
MONTREAL, CANADA

Cable Address: "FORTGARRY"

Codes: Bentley's—Riversido



T. YAHIRO, chief of the business section, Nippon Flour Mills Co., Ltd., Tokyo (right), was a visitor at THE Northwestern MILLER during a recent stop in Minneapolis. Seiji Sakurai of the Portland, Ore., branch of Mitsui and Company, Ltd. (center) acted as interpreter for the Japanese mill representative. Howard Hardy, North Dakota State Wheat Commission, Bismarck, N.D., arranged the details of the Minneapolis trip for Mr. Yahiro who is touring the U.S. studying the flour milling industry.

Strutt Co., Portland. For the past 12 years Mr. Bratney has been doing sales and plant designing for grain milling, feed and seed facilities in the Pacific Northwest. Already familiar with the Simon-Carter line, he will be working on specific cleaning, separating and grading applications. Mr. Bratney's partner, **Duane Tyler,** formed the D. W. Tyler Co. in 1960 and represents Simon-Carter as well as other manufacturers of allied equipment. Mr. Tyler was president of Reid-Strutt from 1945 to 1959 before resigning to form his own company. A specialist in plant design and flow layout, Mr. Tyler has full operating knowledge of the entire Simon-Carter line.

●

The field staff of the American Institute of Baking has been expanded to 10 members with the addition of **John W. Householder,** formerly with the environmental sanitation section of the Wisconsin State Board of Health. Mr. Householder will be based in Chicago, inspecting plants in Illinois, Indiana, eastern Iowa, Missouri and southern Wisconsin. AIB field staff members now inspect 501 baking and allied plants throughout the U.S.

J. W. Householder

●

A transportation expert familiar with both railroading and trucking has joined the freight sales staff of the Soo Line Railroad to direct piggyback and less-than-carload freight services. He is **George J. Morley,** who will operate with the title of traffic manager for rail-van and merchandise services, states **Ross L. Thorfinnson,** vice president of traffic.

●

B. C. Parker, Pan American Mills, Bowling Green, Ky., has been elected president of the Kentucky Millers Assn. As vice president, the association has elected **Dave Braughler,** Farmers & Merchants Milling Co., Brooksville. **Charles B. Long,** Climax Mills, Inc., Shelbyville, becomes secretary-treasurer.

●

Vacationing in Switzerland with his grandparents is young **Markus Schiess,** son of Buhler's **Mr. and Mrs. Fritz Schiess.** Markus flew the Atlantic in company with **Mr. and Mrs. John Hendrickson,** International Milling Co., who attended the recent Buhler 100th anniversary celebration in Uzwil.

●

Spencer Kellogg & Sons, Inc., has named **E. I. Schumm** manager of its corn milling division, reports **Thomas W. Staley,** division president. Mr. Schumm joined Spencer Kellogg at Kansas City in January of 1960, bringing with him more than 10 years of experience in various phases of the dry process corn milling business. Prior to entering the corn milling field, he held managerial positions in the baking industry. Spencer Kellogg's corn milling division has relocated its Kansas City offices from the mill plant to a new headquarters building, leaving room for additional milling expansion in the plant.

●

Conrad P. Czerniejewski, research analyst, and **Dean Montgomery, Jr.,** technician, have joined the laboratory staff of the American Institute of Baking. Mr. Czerniejewski comes to AIB from the Siebel Institute, where he was a member of the laboratory staff five years.

●

Merchants Biscuit Co., Omaha, has promoted **R. L. Smith** to marketing director. Merchants is a division of the United Biscuit Company of America. Mr. Smith began his career with Bowman Biscuit Co., Denver, another division of United. He was transferred to the Omaha division in 1941 and has been its sales promotion manager.

●

Harry J. Dowsett, secretary of the Ontario Flour Millers Assn. and of the Canadian Flour Export Committee, announces that the address of both organizations is now Room 307, 95 King Street East, Toronto 1, Ont. The telephone number is 363-5575. «

IN ADDITION to filling a full-time position handling advertising and sales promotion for the multiwall bag division of West Virginia Pulp & Paper Co., Bradley M. Jacobs, Summit, N.J., is an accomplished magician. He began his career at the age of 8, gave his first public performance at 13, and now, at 29, has been elected president of the Parent Assembly of the Society of American Magicians. That makes Mr. Bradley the youngest practitioner of the art ever to hold that office. He follows in the illustrious footsteps of another fabulous magician, Harry Houdini, who at one time held the office of president nine years.

QUALITY UNIFORMLY MAINTAINED SINCE 1887

Lake of the Woods Milling Co. Limited

Cable Address
"HASTINGS"
Montreal

ALL
CABLE CODES
USED

Makers of CANADIAN HARD SPRING WHEAT *Flour*

Mills at
Montreal, Keewatin, Winnipeg, Medicine Hat

HEAD OFFICE: MONTREAL WESTERN OFFICE: WINNIPEG

Build a Mill? When? Right now? Whee!

FAMOUS TRIPLETS—Pictured are the Stanger triplets, born in Minneapolis three years ago, now residents of England. Left to right, they are Michael, John and David. Parents are Mr. and Mrs. Eric Stanger of Henry Simon, Ltd., Cheadle Heath, England. Formerly manager for the Simon firm in the U.S. and subsequently vice president of Simon-Carter Co. of Minneapolis, Mr. Stanger is now based at Simon headquarters in Cheadle Heath as director of the milling division. Mr. and Mrs. Stanger attended the technical conference of the Association of Operative Millers in Minneapolis last month.

Golf Outing

Members of District 4, Association of Operative Millers, attended a golf outing recently at the Minnetonka Country Club in the Minneapolis area. Arlin Ward, the Pillsbury Co., was top golfer; Ken Nordstrom, General Mills, Inc., came in second, and Albert Gunner, also of General Mills, placed third.

With representatives of allied firms present, members of the district climaxed their outing with a dinner at the country club. The event was arranged by Mr. Gunner, chairman, assisted by Dick Pierson of Smico Sales Co.; W. R. Carter, the R. J. S. Carter Co., and Mr. Ward. «

CLASSIFIED DEPARTMENT

Advertisements in this department are 20¢ per word; minimum charge, $3.00. (Count six words for signature.) Add 25¢ per insertion for forwarding of replies if keyed to office of publication. Situations Wanted advertisements will be accepted for 15¢ per word, $2.25 minimum. Add 25¢ per insertion for keyed replies. Display Want Ads $20 per inch per insertion. All Want Ads cash with order.

◆ ◆ ◆

MACHINERY FOR SALE

FOR SALE—FALK F-6 COUPLINGS, GOOD AS new. Small bore $15 each. R. H. Magerkurth, 1907 Gage Blvd., Topeka, Kansas.

FOR SALE—ONE PAIR 36-INCH FRENCH BUHR stones with housing and stand. Address Ad No. 6948, THE Northwestern MILLER, Minneapolis 40, Minn.

J. H. BLAKE
FLOUR
Representing Highest Class Mills and Buyers
26 Broadway Room 948
NEW YORK 4, N. Y.

FLOUR
Broker and Merchandiser
DAVID COLEMAN, Incorporated
Members N. Y. Produce Exchange
Rm. 520—120 Bdwy., NEW YORK 5, N. Y.
New England Office: 211 Bryant St., Malden, Mass.

WILLIAM PENN FLOUR CO.
FOREIGN **FLOUR** DOMESTIC
1116 Barclay Building
One Belmont Avenue
BALA CYNWYD, PA.

HELP WANTED

Grain Merchandiser

Large, progressive grain company headquartered in Midwest needs experienced grain man to fill important spot in expanding merchandising and buying program. Good salary, liberal company benefits and excellent opportunity for advancement. Qualified applicants must have minimum of 3 years' grain buying or merchandising experience. Write, giving full details of experience, education, personal data, and salary requirements to Ad No. 6981, The Northwestern Miller, Minneapolis 40, Minn.

MARKET QUOTATIONS AT A GLANCE

FLOUR

June 21 Quotations, Based on Carlots, Prompt Delivery

	Kansas City Hard Winter	Minneapolis Spring	Buffalo Spring	Chicago	New York	Seattle
Bakery short patent	$5.15@5.25	$5.85@5.95	$6.28@6.37	$...@...	$...@...	$...@...
Bakery standard patent	5.05@5.15	5.75@5.84	6.18@6.27	...@...	...@...	...@...
First clear	4.30@4.55	4.80@4.95	5.20@5.48	...@...	...@...	...@...
High gluten	5.40@5.50	6.10@6.20	6.53@6.62	...@...	...@...	...@...
*Family	...@6.80	...@6.80	...@6.80	...@...	...@...	...@8.30
*Bakers fancy cake	...@...	...@...	...@...	...@...	...@7.85	...@...
**Straight grade cracker flour	...@...	...@...	...@...	...@...	...@...	...@...
*Pastry	...@...	...@...	...@...	...@...	...@...	...@5.19
Rye, white	...@...	3.99@4.09	...@...	4.27@4.37	...@...	...@...
Rye, medium	...@...	3.79@3.89	...@...	4.07@4.17	...@...	...@...
Rye dark	...@...	3.24@3.34	...@...	3.52@3.62	...@...	...@...
Semolina	...@6.40	...@...	...@...	...@...	...@...	...@...

	Toronto	Winnipeg
*Spring top patent	$6.30@6.35	$...@...
**Bakers	5.00@5.15	...@...

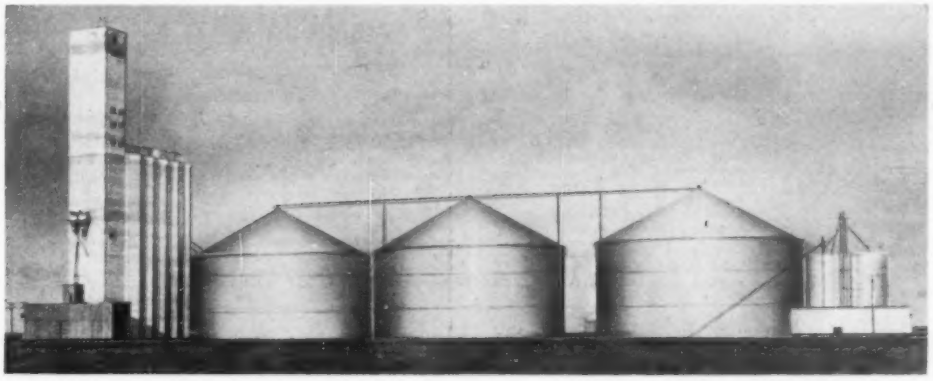
MILLFEED

June 21 Quotations, Based on Carlots, Prompt Delivery

	Minneapolis		Kansas City		Chicago		Seattle	
	Sacked	Bulk	Sacked	Bulk	Sacked	Bulk	Sacked	Bulk
Bran	$33.00@33.50	$28.50@29.00	$33.00@33.50	$29.00@29.50	$34.00@34.50	$28.00@28.50	$...@...	$...@...
Std. midds.	36.50@37.00	30.00@30.50	...@...	30.00@30.50	39.50@40.00	33.00@33.50	...@...	...@...
Red dog	40.00@42.00	...@...	...@...	...@...	45.00@46.00	...@...	...@51.00	...@47.00
Shorts	...@...	...@...	38.50@39.00	32.50@33.00	...@...	...@...	...@...	...@...
Millrun	...@...	...@...	...@...	...@...	...@...	...@...	...@45.00	...@41.00

	Bran	Shorts	Middlings
Toronto	$46.00@48.00	$48.00@49.00	$53.00@55.00
Winnipeg	...@...	...@...	...@...

*Flour prices 100 lb. cottons.
**Flour prices 100 lb. papers.



J-T Elevator Co.

Serving the Milling and Grain Industries and Export Trade

JAMESTOWN • NORTH DAKOTA

3 Million Bushels
Federally Licensed
Rail or Truck Handling

OLIVER E. COLLISON
Manager
Post Office Box 1058
Phone: CLinton 2-0061

Fast Service on Grain Storage—for Government Loan or Private Account

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GRIST of GRINS

"But Millie," Peggy said. "I just can't catch on to the hula."

"It's very simple. You put some grass on one hip, and some more grass on the other hip, and then you rotate the crops."

◆ ◆ ◆

The father entered the room just as the children were starting a free-for-all. "See here, Johnny," said the father, grabbing one of the youngsters, "who started this?"

"Well," said Johnny, "it's all Freddy's fault. He started it when he hit me back."

◆ ◆ ◆

BREEDING: The quality that enables a person to wait in well-mannered silence while the loudmouth gets the service.

◆ ◆ ◆

A Martian landed in Las Vegas and watched people playing a slot machine. The Martian finally went up to the machine and said, "I don't know what office you're running for, but try to smile a little more when you shake hands."

◆ ◆ ◆

The bus was terribly crowded, and the passengers kept pushing a man to the rear until they finally pushed him out the rear-exit door. Frantically, he ran to the front of the bus and tried to get on again. "I'm sorry," somebody yelled at him, "but we're too crowded. Wait for the next bus!"

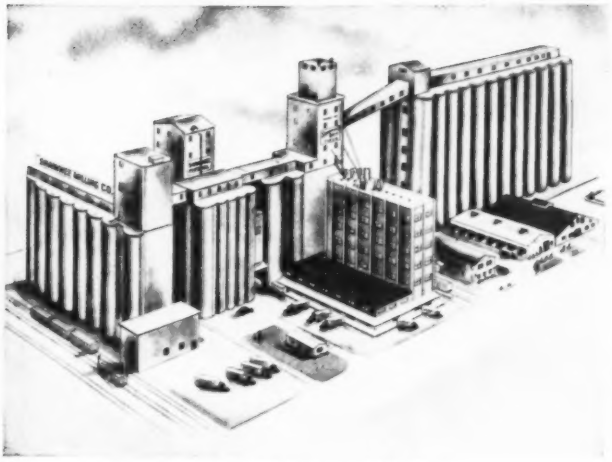
"But you've got to let me on," he pleaded. "I'm the driver!"

◆ ◆ ◆

"Dad, did you go to church when you were a little boy?"

"Every Sunday, Son."

"See Mom . . . it probably won't do me any good either."



▲ Shawnee Milling Co., Shawnee, Oklahoma
5,100 sacks wheat flour; 1,200 sacks corn meal
250 tons mixed feed; mill elevator storage 2,500,000 bu.

▲ Okeene Milling Co., Okeene, Oklahoma
2,200 sacks wheat flour;
Mill elevator storage 650,000 bu.

SHAWNEE MILLING COMPANY SCALPS MILLING COSTS

With W&T Flour Treatment

At Shawnee Milling, mill managers control some of their costs with dependable Wallace & Tiernan equipment and processes. They know that quality, cost, and good running time go hand in hand—that they can depend upon W&T to keep its bleaching and maturing processes running—that stoppages won't turn flour into the "dirty" bin for costly reblending.

And Shawnee uses W&T's flour treatment not only for dependability but for performance:

- Dyox® for fresh, sharp chlorine dioxide gas, made as it is used... precisely metered as a gas not a liquid.
- Novadelox® for best color removal, ease of application, consistent results.
- Beta Chlora® machines for pinpoint pH control with one, easily-read setting.

Shawnee Milling Company is only one of the many milling companies using W&T flour treatment. If your mill is not one of these investigate the advantages of Wallace & Tiernan's complete flour service.

▲ Dyox machine for making and metering chlorine dioxide gas. The gas is immediate! available without waste.

▲ Novadelox feeders with blowing arrangement. Note drum of Novadelox bleach in foreground.

NOVADEL FLOUR SERVICE DIVISION
WALLACE & TIERNAN INCORPORATED
25 MAIN STREET, BELLEVILLE 9, NEW JERSEY
REPRESENTATIVES IN PRINCIPAL CITIES

N-115.64

Nicest stop on the way home from school is still the neighborhood bakery

The makers and purveyors of bread are still in the business of delighting everybody who eats. You may have forgotten the pleasures of being eight years old and hungry, with a coin in your pocket and a bakery full of surprises. But that pleasure is as strong today as ever, and as long as kids are kids, as long as people are people, it will continue to be. This is why bread and bread products are part and parcel of today's community. General Mills is proud to serve an industry the community needs so much.

Good eating will always begin with Bread

General Mills